

APPLIED SCIENCE LEADING BOOK

# THE *Country* GUIDE

1100 #3

In This Issue . . .

- CFA's Quarter Century
- Pork on a Schedule
- Seedbed in the House

CANADA'S NATIONAL RURAL MONTHLY

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# THE *Country* GUIDE

Incorporating *The Nor-West Farmer* and *Farm and Home*

CANADA'S NATIONAL RURAL MONTHLY

## In This Issue

- GUIDE TO EGGMANSHIP, another in the "Get It at a Glance" series (page 13), was prepared by Prof. H. L. Orr, Ontario Agricultural College, with Don Baron.



Myron Verburg with Sweetgrass hills beyond.

- SWEETGRASS FARMER and his wife were hosts to Guide editors Cliff Faulknor and Elva Fletcher. The stories are on pages 12 and 79.

**THERE'S HELP FOR YOU** this spring cleaning season! You'll find time and energy saving pointers for the homemaker in a quiz — "Make Your Housework Easier" — on page 78.

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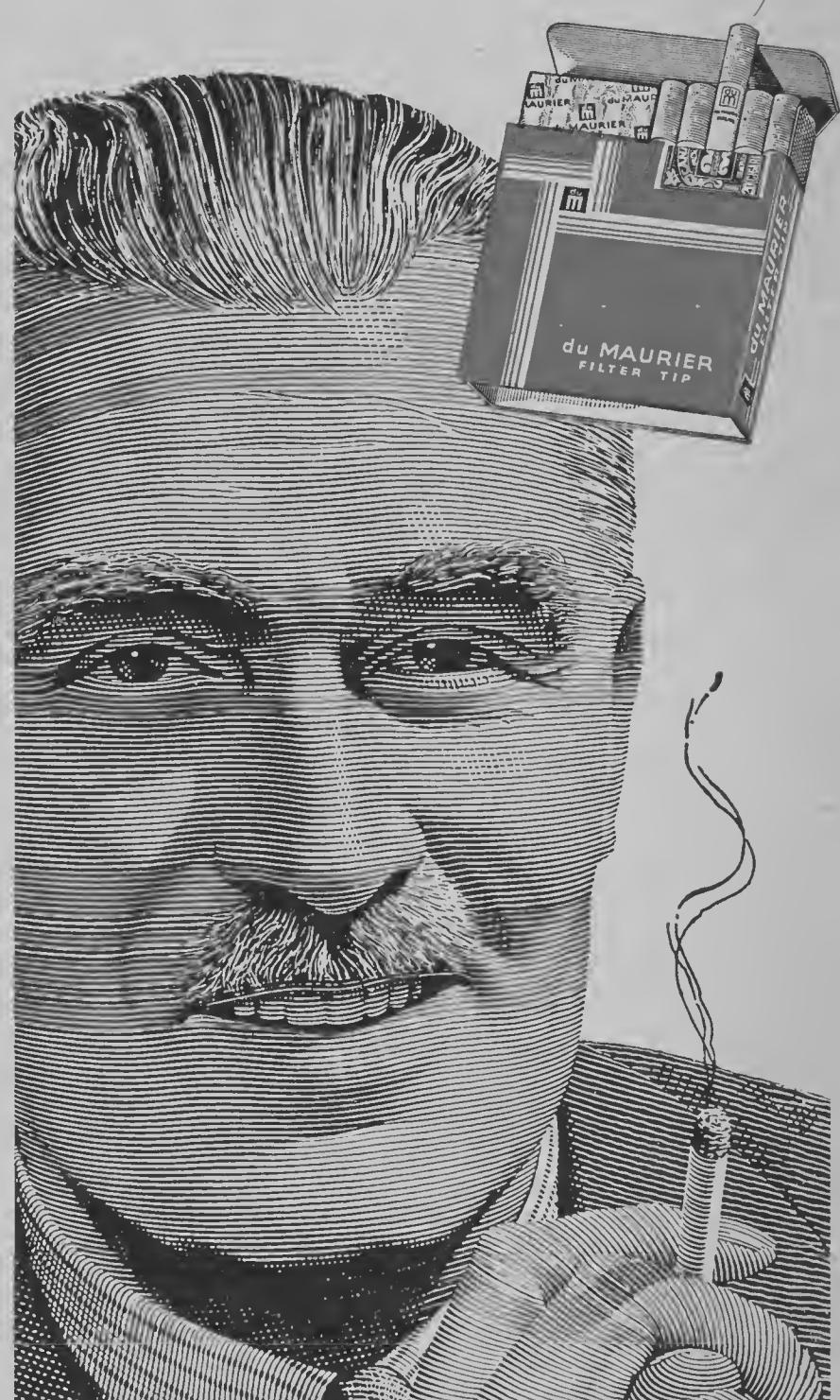
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**COVER:** Once an everyday sight, the last steam locomotives were withdrawn from service last year, leaving only a few as standbys in Nova Scotia.—F. B. Stevenson photo.

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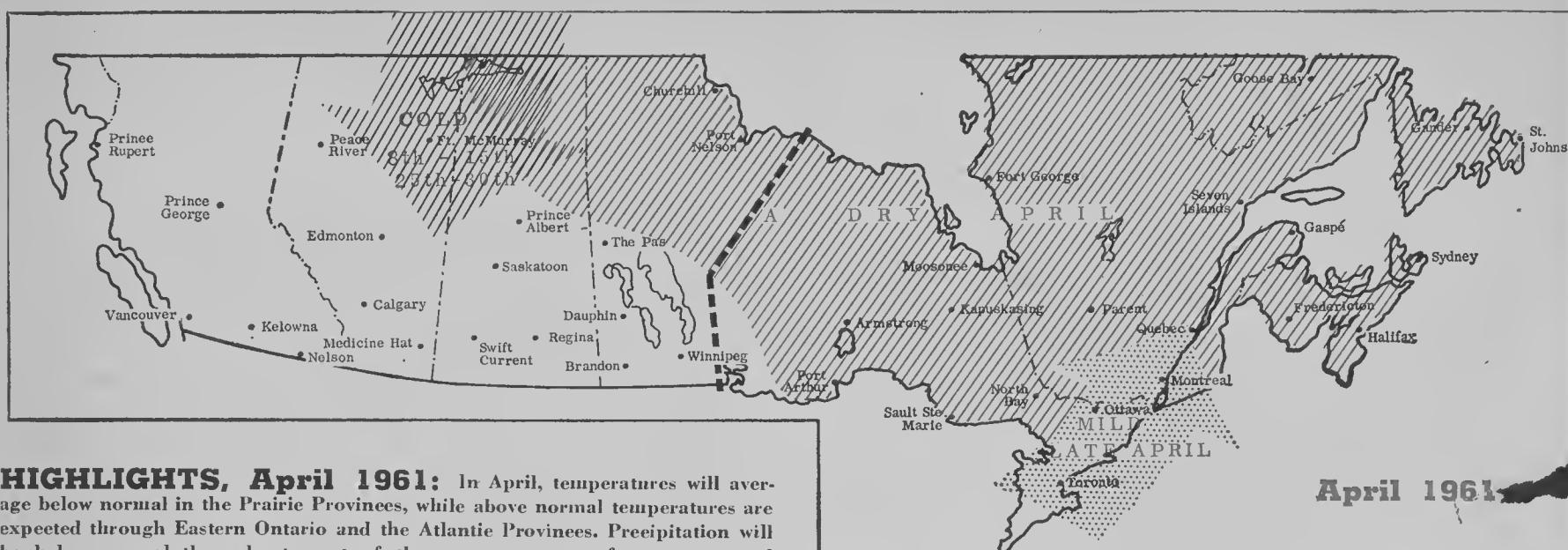
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Prepared by DR. IRVING P. KRICK and Associates



**HIGHLIGHTS, April 1961:** In April, temperatures will average below normal in the Prairie Provinces, while above normal temperatures are expected through Eastern Ontario and the Atlantic Provinces. Precipitation will be below normal throughout most of the country, except for near normal values in the southern prairies.

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

### Alberta



**1st week 1-8:** Cold on 1st will give way to milder conditions near mid-week; colder weather will follow by end of week. Threat of some snow likely near 4th with cloudy, unsettled conditions around 6th.

**2nd week 9-15:** Cold will persist for first day or two with more cold due near 13th-14th. Southern sections will receive some snow near 9th-10th but otherwise generally dry, windy conditions will predominate.

**3rd week 16-22:** The week will begin mild, but some blustery weather will occur on a couple of days near mid-week. Temperatures will drop lower again just prior to the week end.

**4th week 23-30:** Some storminess is expected to develop near the 24th; although it will be cold at times, frequently fair weather will be an important characteristic of the week.

### Saskatchewan



**1st week 1-8:** Threatening, unsettled conditions are likely during first couple of days with showery weather near 5th. No unusual cold expected; in fact it will be mild for a few days around 5th.

**2nd week 9-15:** Cold air will move into the province near the 10th, and again the 13th, to highlight the weather this week. Principal storminess is expected during the first couple of days of the week.

**3rd week 16-22:** Temperatures will moderate during the first day or two with no extremely cold air expected to reach the region. Cloudy and stormy weather is due toward the end of the week.

**4th week 23-30:** A cold air mass will invade the region near the 25th, and it will be reinforced by another cold surge about the 28th. Some snow is likely to make an appearance near the 28th.

### Manitoba



**1st week 1-8:** Unsettled conditions are likely for a couple of days near the 3rd; otherwise no important storminess is expected. Coldest weather is indicated near the 1st and again 5th-6th.

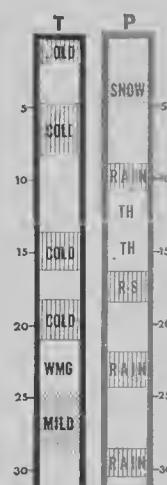
**2nd week 9-15:** Seasonal temperatures will characterize most of the week with colder weather due near the 14th. Storminess is expected to occur around the 10th; otherwise fair weather will predominate.

**3rd week 16-22:** Precipitation will be on the light side during most of the week with showery weather indicated on the last day or two. No extremely cold air is expected to influence the province.

**4th week 23-30:** Improving conditions are expected on the 25th as colder air pushes into the region. More cold is due during the last day or two. It will be accompanied by light precipitation.

**TH=Threatening**

### Ontario



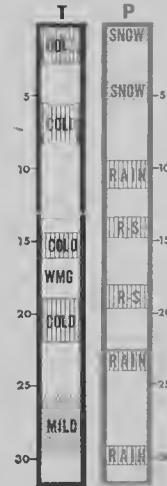
**1st week 1-8:** Some snow is expected in the Great Lakes section around the 4th. This will be followed by an invasion of colder air which will probably persist into the week end.

**2nd week 9-15:** The week will be frequently unsettled with the principal threat of some scattered showers occurring about the 10th. The coldest weather may be expected over the week end.

**3rd week 16-22:** Stormy conditions are expected about the 17th-18th. The forecast following this interval is for more cold air that will move into the province and persist into the 21st.

**4th week 23-30:** Unsettled, rainy weather is to be expected early in the week, and should return again near the 29th-30th. Mild weather will predominate between the 25th and 28th of the month.

### Quebec

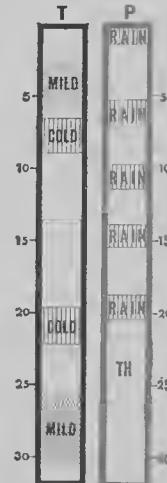


**1st week 1-8:** The month is expected to begin chilly and showery with further showers occurring near the 5th. Rising temperatures around the 3rd will give way to colder conditions by the 6th.

**2nd week 9-15:** Showers are expected in south on 10th-11th, and again about 14th. Temperatures will be in a pleasant range during most of week but colder air will reach province on week end.

**3rd week 16-22:** The forecast is that a warming trend during the early part of the week will be followed by storminess and lowering temperatures near the 19th of the month.

**4th week 23-30:** Temperature will moderate during first couple of days, with generally mild weather between 25th and 29th. Some showers expected in northern section around 23rd and more general storminess 30th.



**1st week 1-8:** A few showers are likely on the 1st and 6th-7th. Generally mild weather will predominate during the first half of the week followed by colder conditions near the 7th.

**2nd week 9-15:** A warming trend is due after 10th with no unusually cold weather expected thereafter. Some showers will affect the region near 10th-11th with rain again in coastal sections about 14th.

**3rd week 16-22:** The generally mild trend of the previous week will be followed by a threat of rain around the 20th. Colder air will then invade the provinces, persisting through the week end.

**4th week 23-30:** Except for threatening conditions expected on the first couple of days, this interval will be characterized by mostly mild, fair weather to close out the month of April.

**TH=Threatening**

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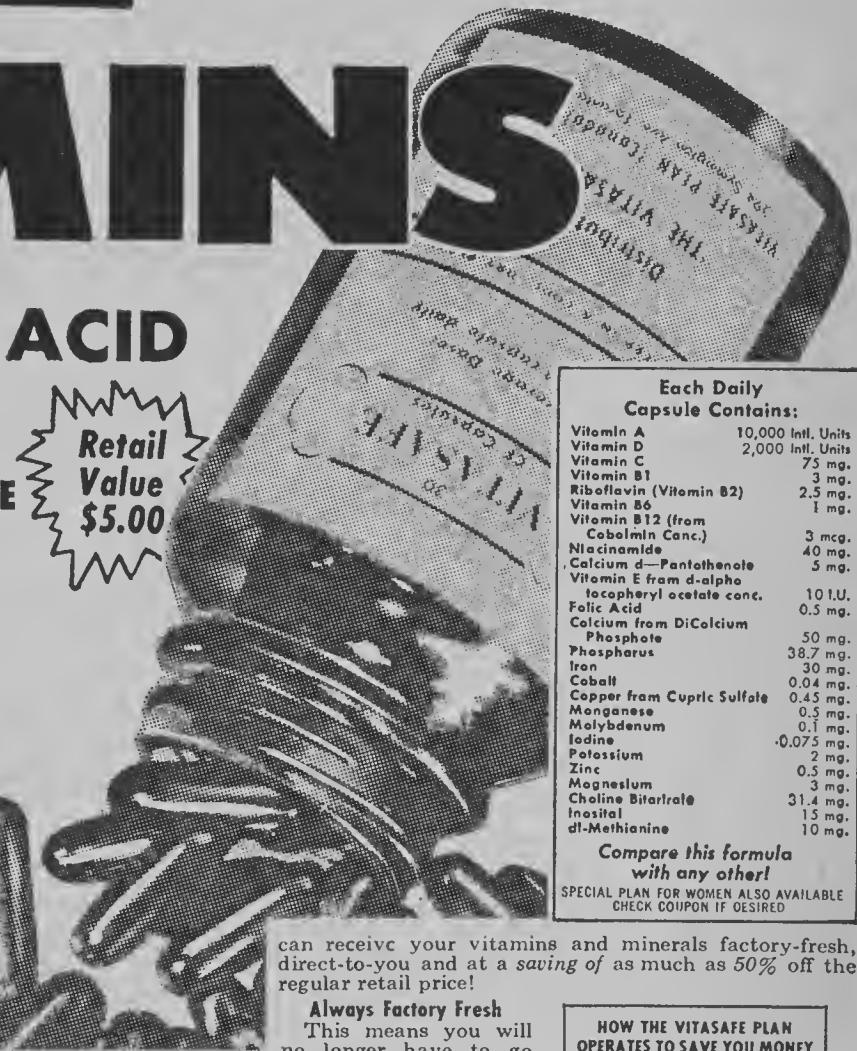
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# Editorials

**A**N opportunity has come our way in recent weeks to reflect on the history of the Canadian Federation of Agriculture, to witness the celebration of its silver anniversary, and to observe the organization at work. A report of the CFA's 25th annual meeting commences on page 14. Since this national farm organization either directly or indirectly embraces and speaks for the vast majority of our subscribers, we commend the report to your attention.

In addition, it seemed appropriate after such a meeting to take a look at the Federation itself, and to assess in a preliminary way the new price, production and marketing policy it has decided to pursue. Our comments follow.

## Strengths Win Out

**W**HAT about the Federation itself? Well, from where we sit, it looks as though the organization is going to continue to enjoy wide support and recognition for a long time to come. This doesn't mean the CFA doesn't have some chinks in its armor, but rather that its strengths more than compensate for its weaknesses.

Let us first examine its main strengths.

The Federation has been successful in maintaining within its membership a wide variety of provincial and regional farm co-operatives, commodity groups, and direct membership bodies in both English- and French-speaking Canada, and from one coast to the other. Through democratic processes it has been able to weld the viewpoints of these diverse groups into a single whole, so that it could speak with unison and strength for the great majority of our farm people. Hence, being broadly representative and having the ability to reach common ground are the Federation's greatest strengths. Without these characteristics, it could not command the recognition it enjoys.

A third area of strength, which has its origin in the first two, is the influence the Federation has had on policy formation. It is fair to say the organization has either taken the initiative on, or helped to negotiate, every major piece of farm legislation placed on the Federal statute books within its lifetime. In addition, it has given voice to farmers' views with respect to a great many other matters. And while it is true that many problems remain to challenge the organization, its record of influence, accomplishment and public service, when viewed in perspective, can be matched by few other similar national organizations in Canada.

A final area of strength is the way in which the Federation has gone about its work. Its attitudes, while determined, have been moderate and constructive; its conduct dignified; its methods democratic; and, its procedures ones of education, consultation and negotiation. In combination, such an approach may seem slow in getting results when compared to an aggressive, demanding and militant one, but it has proven the more effective in our judgment. As agriculture becomes a relatively smaller part of the total economy, confidence which has been built up in the Federation over the years will give it a decided advantage.

**N**OW, let us turn to the Federation's weaknesses. First off, the Federation has been charged with developing policy proposals which are inconsistent or which discriminate against minority groups. To understand such charges one must take into account that within its structure there are wide differences of interest. These range between regions, between commodity groups, between segments of agriculture dependent on exports and those dependent on protection, between those who sup-

port co-operatives and those who don't, between large farmers and small farmers, between those who cherish independence and those who expect the government to keep them.

If agriculture is to speak with a united voice, such differences must be resolved into some common denominator. This is achieved by democratic voting and by compromise. Obviously, the proposals that result can, at times, be inconsistent, and lead governments, press and public to take a dim view of them. They can also be at variance with the interests of a minority group of farm people. This can lead to dissatisfaction with the organization itself.

A second area of weakness is the development of a rival farm organization, now known as the National Farmers' Union. The fact that it exists indicates the Federation has been unsuccessful in representing a significant minority of farmers, particularly on the Prairies. This rivalry arises in part from the Federation's weaknesses described above; partly from the belief that co-operatives and commodity groups (which are an integral part of the Federation) should have a less active voice in formulating general farm policy; and, finally, because of the Federation structure itself. In this latter connection, the long linkage between the executive group and the grass roots is such that to many farm people the Federation's activities do not seem very meaningful, nor do many feel they have sufficient opportunity to influence the proposals being promoted on their behalf. What has been happening, of course, is that two organizations have been speaking for farm people in the councils of the nation. Their

general approach, and frequently their proposals, have been at variance. This confuses the public and provides the government with opportunity to play one organization against the other, or with excuses for it to do nothing.

A final weakness often raised is the Federation's heavy reliance on government help to resolve farm problems. It often seems it has been so preoccupied with obtaining government assistance that it has missed opportunities to promote a greater degree of self-help in agriculture. Notwithstanding the truth in this criticism, these things need to be borne in mind: (1) Federation requests to government have generally been justified by serious difficulties farmers are having—difficulties caused by circumstances beyond their control. (2) A large part of public expenditures charged against farmers are of as much or more value to consumers, because they lead to lower food costs. (3) The Federation is now prepared to give greater emphasis to self-help programs.

What can the Federation do about these weaknesses? Well, if there was an easy way to overcome them, the necessary steps would have been taken by now. However, there are certain things worth trying. Effective organization stems from active local groups. There is a need, more especially in some parts of the country than in others, to provide appropriate programs and activities at the local level which could be directly identified with the national Federation. In this, Federation member bodies have the major responsibility. Stepped up educational programs on all aspects of the farm problem would help in reducing misunderstandings and conflict within the farm movement. Differences need to be recognized, understood and encompassed within one farm organization. In the highly organized society in which we live, the need for a single, united voice for agriculture is greater than ever. The Federation is the natural body to bring this about. ✓

## A Tough Journey

**W**HAT'S the Federation's new policy statement on price, production and marketing of farm products all about?

Reduced to simplest terms the organization believes that, because farmers compete for a market insufficiently large to support them all, effective control, planning and stabilization of prices and marketing of farm products must be established if farm people are to obtain a fairer share of the national income. There are essentially two ways to approach this objective. One is by having the state attempt it; the other is for farmers to do it themselves. The Federation officially rejects overall planning and control of farming by the state, although it recognizes the state must continue to play a co-operative and supporting role. It proposes, as the alternative, producer controlled marketing—the development of farm co-operatives and producer marketing boards on a regional or national scale—as the best course to follow.

This basic position is augmented in the statement by these important convictions:

- The first aim of farm policy must be to utilize this nation's, and the world's food producing capacity. Markets must be developed to their maximum, at home and abroad.
- Price supports should be looked upon as a means of reducing price instability. They cannot bring about a parity of income position by themselves, because the resulting expansion in production defeats this purpose.
- The family farm pattern has not yet been displaced to any significant degree, nor does there appear to be much reason why it should, but it will continue to be subject to change.
- Agriculture must accept continued change in a dynamic economy in the interests of the long-term welfare of the farm population and

the nation as a whole. Policies will be needed to assist orderly adjustments to change.

In giving approval to the statement, the CFA has pledged itself to focus its energies and attention to a much greater degree than heretofore on the objective of developing producer control of marketing. The Federation is to be commended for its stand, recognizing as it does that the policy will be controversial and that the task will be the biggest it has undertaken.

It is of course impossible to predict the outcome. Much will depend on the leadership that is given the undertaking at all levels of the organization. An immense amount of advance study and education will be necessary before much headway can be made. There will be some tough legal obstacles to meet and conquer. Farmers, particularly those who operate large units, will have to agree to sacrifice some of their independence for the common good. Others will have to accept the implied need for adjusting to change, or take the consequences.

Notwithstanding such challenges and difficulties, the policy is especially appealing to us on two counts. First, it is based on producer self-determination, co-operation and initiative as the means of achieving a more prosperous and stable agriculture. This is sound, because we have never thought the state could or would legislate farm prosperity in a democracy. And second, the policy holds out the first real hope of attacking the causes (rather than the symptoms) of the cost-price squeeze in farming, because it advocates a measure of supply control along with market expansion.

The CFA policy now clearly embodies a long-term objective of obtaining supply control for agriculture that deserves careful consideration. In the hope of presenting a picture of the problems and prospects involved, we plan a series of three articles on this topic starting with the April issue. In view of the CFA commitment, you won't want to miss them. ✓

**MORE STABILITY  
FOR HOG INDUSTRY**

The hog industry is becoming more stable. That's the view of R. K. Bennett, Canada Department of Agriculture official, who, in speaking to the Meat Packers' Council annual meeting, said that the number of hogs coming to market in the United States since 1955 has fluctuated less through any given year than before that time.

Mr. Bennett reported the normal hog cycle from peak to peak is now about 4 years. In this cycle, which is a North American one, there is a characteristic price pattern: "... a period of 14 to 16 months (about one-third of the time) of lower prices, possibly at levels the producer might consider as unprofitable, and reasonably good prices for the balance of the cycle."

In Mr. Bennett's view, the Canadian hog producer has at least four advantages over producers in the U.S. corn belt:

- A higher quality hog and resulting higher prices;
- The Federal Government premium on A grade hogs;
- A better feed conversion in the feedlot; and,
- Price supports.

The big development in U.S. hog production is the more stable pattern that is emerging, Mr. Bennett went on. The yearly range in prices is narrowing in line with more evenly distributed marketings. The tendency now is for yearly price ranges of \$3 to \$4 rather than \$5 to \$7 a hundredweight as in earlier years.

Main challenge facing the hog industry today is to provide better pork at less cost, and the key to this is in performance testing of breeding stock. ✓

**CASH ADVANCES RISE**

There were almost 25,000 more applications for cash advances on farm-stored grain at mid-February than there were at the same time in the previous crop year.

Between August 1, 1960, and February 13, a total of \$61.7 million had been advanced. The figure for the previous year was \$37.1 million. The average advance has gone up from \$782 to \$856.

Interest-free advances were instituted in 1957 by the Federal Government to provide cash for grain farmers who, because of congestion of elevator facilities, were unable to deliver their crop. ✓

**INTERIM WHEAT  
AND FINAL OAT PAYMENTS**

An interim payment of 10 cents per bushel on the 1959-60 wheat pool has been announced. This will mean the distribution to producers of some \$37.7 million. Of this total, \$23.7 million will go to producers in Saskatchewan; \$9.2 million to Alberta and B.C.; and, \$4.9 million to Manitoba and Ontario producers.

The Government has also announced that the 1959-60 oat pool

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	Unfertilized Grassland	Grassland Fertilized with Elephant Brand
Pounds of beef per acre	100	200
Production cost per acre	\$17.00	\$24.00*
Production cost per pound of beef **	.17	.12
Value of beef per pound	.20	.20
Profit per pound	.03	.08
Profit per acre	3.00	16.00

### Extra profit due to Elephant Brand and lower production cost per unit — \$13.00 per acre

\*Includes the approximate cost of applying 150 lbs. of Nitrapping per acre.

\*\*Production cost per lb. of beef calculated to nearest cent.

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11-48-0	16-48-0	16-20-0	23-23-0	27-14-0
10-30-10	13-13-13	14-14-7	AMMONIUM SULPHATE (21-0-0)	
NITRAPPING (33.5-0-0)	UREA (45-0-0)		ANHYDROUS AMMONIA (NH <sub>3</sub> ) 82-0-0	

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## What's Happening

has been closed and the final payment to producers is \$3,852,323.

Payments to both wheat and oat producers who delivered to the pools will be going out as rapidly as possible.

### TRANSPORTATION COMMISSION HEAR MAN. AND SASK. BRIEFS

Both the Manitoba and Saskatchewan Governments, in final presentations to the MacPherson Royal Commission on Transportation, called for the Crow's Nest Pass rates on grain to be retained in their present form and at their present level.

The Manitoba brief contended that Canada's railways profit by the movement of grain at the Crow's Nest rates, and rejected the railways' proposal that a Federal subsidy be paid on this traffic.

Manitoba Counsel, Arthur V. Mauro, submitted the present grain rates were reasonable, that they make a contribution to the net revenue of the railways, and that they do not create a burden on other traffic. On the contrary, because of the traffic generated by westbound movement of producer and consumer goods, the grain traffic was the most valuable of all traffic carried.

The Saskatchewan submission declares: "... nothing could conceivably be more unacceptable to the people of the Prairie Provinces than action which would constitute tampering in any way with the Crow's Nest Pass grain rates. Adoption of the railways' proposals in this matter would be the thin edge of the wedge leading in the near future to the utter destruction of the export grain rate structure. The Government of Saskatchewan urges in the strongest possible terms the complete rejection of the railways' proposals and the maintenance of export rates of grain and flour under the protection and control of Parliament in their present form and at their present level without any change."

Further on this question, the Saskatchewan brief states:

Reports of the Western Stock Growers and the Ontario Hog Marketing Board activities appear on pages 100 and 101.

## Report Calls for Milk Marketing Board

*Aim: to maintain returns to fluid producers, increase the revenue of other dairy farmers*

ONTARIO'S dairy farmers may soon be ready to take another long step forward in settling their marketing problems.

A committee of enquiry appointed by the Milk Producers' Co-ordinating Board (which represents the fluid milk, cream, cheese, and manufacturing milk shippers) has presented its report. It pinpoints the main milk marketing and pricing problems today, and suggests ways to meet them. Dairy leaders will present the suggestions to dairy farmers across the province in coming weeks.

"An unconscionable proportion of the Commission's time and energy has been absorbed in receiving evidence on the cost of handling export grain. Saskatchewan nevertheless submits that no reasonable finding can possibly be made by the Commission on the basis of the figures placed before it or of the concepts which purport to give meaning to the figures.

"Saskatchewan urges that the Commission must, in all reason, completely disregard the allegations made before it which would single out the movement of grain as the cause of the dilemma of the railways."

### CHAIN STORES LOOK AT MEAT

Some cattlemen pay a penalty for producing overly-fat animals. That's the opinion of chain store representative J. Wright who spoke at the Meat Packers' Council annual meeting in Toronto. He said if retailers buy overly-fat carcasses the surplus fat must be trimmed off. As a result, his buyers retain the privilege of selecting beef carcasses carefully.

Mr. Wright also said there is a need for more promotion to help sell meat from the front quarters of beef carcasses. Front quarter meat requires special care in cooking, but it is good meat, he said, and referred to barbecue demonstrations his own company sponsored to increase meat sales.

Another chain store representative, Nathan Gordon, suggested that a problem facing retailers in handling pork has been the fluctuation in supplies. Once a customer develops a taste for bacon or sausages or chops, supply and price should be kept more constant, he said. He speculated that it must be costly for many producers to be continually increasing and decreasing the size of their hog operations, for this meant that their facilities were lying idle much of the time.

The plan would rely on continued expansion in the demand for fluid milk, to maintain returns to fluid milk shippers, and at the same time to increase returns to shippers of milk for manufacturing.

(Please turn to page 98)

# GUIDEPOSTS

## UP-TO-DATE FARM MARKET FORECASTS

**LOWER TURKEY PRICES** will be in store for you next fall and winter unless expansion is kept in check. While reasonably low prices help keep consumers interested, bankruptcy prices don't benefit anyone in the long run.

**CANADIAN WHEAT EXPORTS** for 1960-61 should total somewhere near a respectable 325 million bushels. Another 150 to 160 million will be used at home. Together, these about match last fall's crop of 490 million, but carryover from previous crops will still be large and burdensome.

**EDIBLE VEGETABLE OILSEED** markets, led by the speculative binge in U.S. soybeans, have been very active. As we have mentioned from time to time, there are no large government-held supplies hanging over world oils and fats markets, and tight supplies--real or fancied--can lead to rather sharp price increases. Don't expect these prices to hold.

**CATTLE PRICES** have been holding well. We can expect some weakness when heavy supplies start coming from the feedlots, but no sharp price breaks are in sight yet.

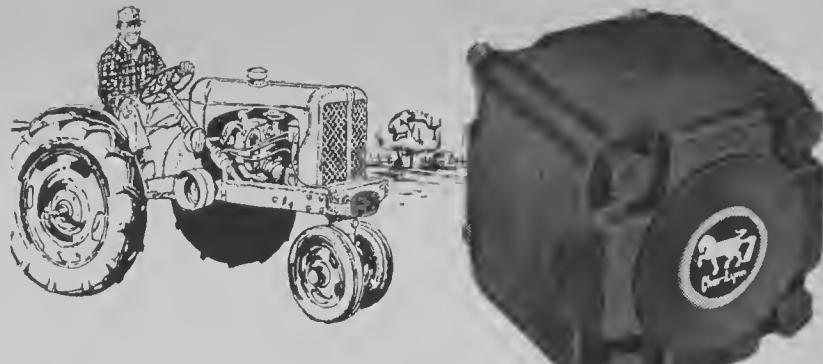
**WORLD WHEAT TRADE** will establish new records this year. The U.S. has been setting the pace all season with exports well above a year ago. Australia is piling up an excellent sales record, and recent Canadian sales to Communist countries and heavy durum sales are giving us a look-in. The Argentine has relatively small supplies this year.

**BARLEY EXPORTS** have been a disappointment so far this season, dwindling down to less than half of last year's. Our prices are high compared with world grain prices and competition has been fierce. Prospects are brightening, however, with the Communist China deal and the slow-up of Russian and Australian offers to the U.K. market.

**OAT EXPORT MARKET**, now nearly nonexistent, is not likely to improve. Farm marketings are more than double those of a year earlier and this pace will likely continue just to meet home requirements.

**EXCELLENT HOG PRICES** will continue until fall. Marketings are then expected to mount up over last year's, but it appears, so far, that these will be easily absorbed at lower, though not disastrous, prices.

**RAPESEED PRICES** have been agreeable, helped by the recent upsurge in soybeans. The record-sized crop is moving into export markets very smoothly, and if we continue to produce on the present scale, Canada will soon be looked on as a dependable source of supply.



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**Good soil does not last indefinitely.** Each grain crop takes nitrogen, phosphorus and other elements from the earth—elements that are vital to plant life. Unless these are replaced, the soil becomes depleted—farmed out.

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**Co-op High Analysis Fertilizers,** properly applied, will generally give favorable re-

sults on both stubble and summerfallow crops. Apart from increased yields, other noticeable effects are—rapid root development, vigorous growth, ability to compete with weeds and resistance to root rot. Also, early maturity and uniform ripening will help avoid frost hazard—and generally bring better grades of grain.

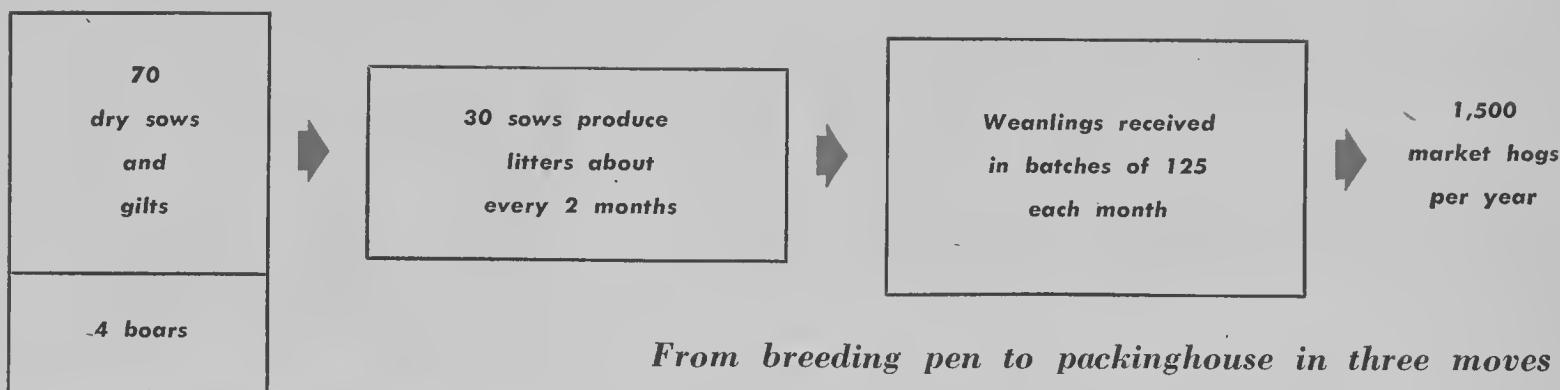
**Keep your soil fertile**—to help ensure that the good earth will provide abundantly, good soil management is essential. Co-op fertilizers can play a vital part in successful farming.

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# Pork on a Schedule



*From breeding pen to packinghouse in three moves*

by RICHARD COBB



This barn houses 70 dry sows and 4 boars. Wide doorways allow tractor in to clean up manure. Guide photos

THREE separate barns, for the three main stages in raising market hogs, are the basis of a modern production-line operation at Manitou, Man. One house is for dry sows and gilts, the second for the farrowing to weaning period, and the third for growing and finishing.

"We found this system easy to operate once we hit the correct intervals for farrowing, and it provides the right conditions for hog development at each stage," says Bert Hall, who is president of a group of three local farmers and three Manitou businessmen who own the plant.

The dry sow house, measuring 22 ft. by 108 ft., accommodates about 70 sows and gilts in 4 large pens, with a manure area for each pair of pens. Doors give access to the manure areas from outside, enabling a front-end loader to drive in and clean them out. At each end of the barn is a small pen where the females go with the boars. Sliding doors open onto concrete aprons outside, which provide more space for breeding when the weather is suitable.

The barn was designed originally to allow sows to go outside for feeding. But this proved unsatisfactory, especially on account of severe winter weather. It has been found much simpler to feed the sows and keep them in condition if they are confined, except occasionally to turn them loose on pasture during very hot weather. The feeding is done entirely by hand, because self-feeding encourages the sows to take more than they really need.

RED sows are moved to the next barn for farrowing. This is 30 ft. wide by 140 ft., and is divided into 34 pens, with a central alley between. Manure gutters, running down both sides of the building, are used also as service alleys for moving the pigs in and out. The barn is heated by an oil furnace and forced air, which operate economically despite the fact that there is no insulation, except for straw in the loft. This is the only building of the three that needs to be heated artificially.

The program is geared to produce approximately 30 litters every 2 months from a herd of 100 sows served by 4 boars. It is planned so that when half of the 30 sows are farrowing, the other half will have litters that are about a month old. This provides an even flow and an annual production of 1,500 market hogs. Bert and his partners figured originally that they would need 17 litters (half the capacity of the farrowing house) to make up each batch of 125 weanlings that are moved monthly into the finishing house. But their experience in 1959 showed that they could come close to this figure if only 28 to 30 pens were in use and half of the litters were ready to be moved each month. This has left them with a few surplus pens in the farrowing house, where they can keep replacement gilts and young boars.

THE finishing barn receives weanlings in batches of 125 a month and can handle 6 of these batches simultaneously at various stages of growth. Each new batch goes into a receiving pen for 6 weeks and is fed a starter ration. Then it is moved to a larger area to allow for the increased size of the hogs, and to make the transition from the starter to the growing ration. Finally the hogs are transferred to the largest pen for finishing. As there are two batches in each category, 6 pens are needed for their different levels of feeding, and there are up to 750 hogs in the barn at one time. There is also a small pen into which the hogs are sorted for shipping.

As in the dry sow house, manure areas in the finishing house are designed to be cleaned out with a front-end loader. This is not done in the



Jim Ferguson looks over new litter in Manitou farrowing house. Manure alley is in background.

farrowing house owing to the relatively small amount of manure, which can be cleaned out easily with a shovel.

Self-feeding is used only during the growing and finishing period. The ration has consisted mostly of oats with some wheat and barley, but an attempt is being made now to feed oats as the only grain for finishing.

The hogs, all Yorkshires, have a fair record of 30 per cent grade A and 55 per cent B carcasses. But with recent changes in grade premiums giving all the advantage to the A grade, the objective is to raise the standard higher. Replacement gilts are being selected from the litters according to rigorous standards and good young boars are being brought in from top herds in the province. Health is also given close attention. Vaccination is used to control swine erysipelas, and doses of iron are given orally to the baby pigs.

IT takes two hired men to handle the hogs. Bert Hall is full-time president, with responsibility also for a broiler plant operated by the group. They work a quarter-section too, and last year put up 10,000 bales of straw on district farms. All the feed grain is grown in the locality.

The hogs are not produced under contract. But the annual output of 200,000 broilers is contracted, because of the need to have an assured supply of chicks and to guarantee that the finished birds can be shipped out as soon as they are ready. The broilers are tended by two other men, one of whom is able to do most of the field work too.

It is worth noting that five men, including Bert Hall, are responsible for close to a million pounds of pork and poultry meat flowing annually onto the market from this Manitou group. V



Bert Hall (r.) with Ed Deamel in the finishing house selecting hogs to be shipped to market. Production is at a rate of about 125 per month.



Myron Verburg with Sweetgrass hills beyond.

by CLIFF FAULKNER

# Sweetgrass Farmer

*The Verburg home stands on an island of green in a droughty land*

**D**OWN along the Alberta-Montana border the Sweetgrass Hills stand out of bald prairie like the proverbial bump on a log. Coming from any direction, the traveler finds his eyes drawn irresistably to them. Nor can he wholly escape a feeling they were dumped unceremoniously out of the blue, blue sky, and perhaps shouldn't be there at all.

The Sweetgrass country lies in a droughty corner of the shortgrass plains. It's a land of big distances, big cattle ranches and big grain outfits. Most of the people who live there—like the Myron Verburgs—have been in the area a long while. They are machine farmers, geared to take a lot of grain from a lot of acres in a short space of time.

Myron was born and raised on this Sweetgrass farm where his father homesteaded his first quarter in 1910. In fact, that original 160 acres has been producing good grain crops without benefit of fertilizer over the past 50 years. Today, he farms 3 sections with his foreman, Jim Stoakley. Of this, 10 quarters belong to Myron and his father (now retired), and two quarters are rented by Jim Stoakley.

In this day of increasing livestock production,

the Verburg operation is an unusual one. There isn't an animal on the place.

"Dad used to have beef cattle," Myron explained, "but he got rid of them in 1930 when he ran out of pasture."

**T**HE 1,200 acres farmed each year (about 720 acres are summerfallowed) produce Chinook and Kharkov wheat, Compana barley, winter rye, mustard seed and flax. Although annual rainfall is low, proper dry farming methods have kept wheat yields to the good average of 28 bushels per acre. Seed yields for the Oriental and Brown mustard varieties run 1,400 lb. to the acre. For yellow mustard, it's about 1,000 lb. per acre.

Most of the mustard crop is shipped to Japan where it's processed into salad oil. Table mustard (produced from the yellow variety) is prepared in the United States.

"The cow cockle weed limits our production of yellow mustard here," Myron Verburg told *The Country Guide*. "You can't get rid of it by cleaning your mustard because the weed seed is the same size. To date, no satisfactory chemical control has been developed either."

Grain from the Sweetgrass area is generally shipped to Vancouver, hub of Canada's growing trade with Japan. Before the recent longshoremen's strike, there was a good market for pearl barley in the Orient. When the ships were tied up, however, Japanese buyers shopped elsewhere for their barley.

"Because of that strike I've got 10,000 bushels of unsold barley in my bins," Verburg said.

Like most grain men, he has cut some of his wheat production in favor of crops which are easier to market. Barley able to make pearl barley grade is in this class because it's free of Wheat Board control. Myron believes feed grain should be decontrolled too, because these sales enable a farmer to buy new equipment when he needs it.



A lovely house in a neatly landscaped and irrigated garden.

"A man with 1,000 acres at a 6-bushel-per-acre quota can't raise \$8,000 to \$9,000 for a new combine," he stated. "Feed grain barter deals are the only way we can get these machines."

**S**INCE taking the farm over from his father 11 years ago, Myron has carried out some major building renovations. A cattle barn built by Verburg senior in 1919 has been converted to a modern grain storage elevator, complete with seed cleaning machinery. Trucks drive right inside and dump their loads through a grate in the floor. From there, grain travels up to the bins via a conveyor.

An up-to-date machine shop, equipped with lathe, machine tools, gas and arc welding outfits takes care of the farm winter work problem. New cultivator points and rod weeder shovels are made here, along with household or hobby items such as chair and table legs.

"If you overhaul your equipment properly each winter you save unnecessary breakdowns in vital spring and summer months," Verburg pointed out.

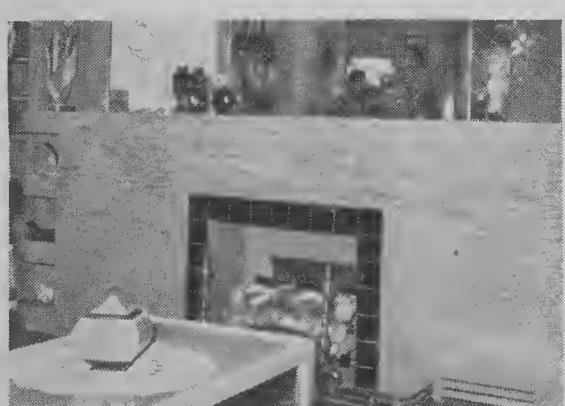
Their biggest remodeling task was on the farm home built by the elder Verburg in 1928. Starting in 1949, Myron and his wife Josephine (Jo) began with the interior and worked out. Last year, this job was completely finished. The result—a comfortable modern home without sacrificing that substantial look many fine old homes have (and most modern houses lack).

On the main floor, the Verburgs moved the bathroom to another part of the house. This allowed them to enlarge their main bedroom and install automatic laundry machines in the kitchen. Into the kitchen too, went a new set of cupboards, plus a breakfast nook. This was separated from the cooking area by a plastic-topped food bar which matches the kitchen table. The "new look" in their living room included a modern fireplace, bookcases and a wall-to-wall carpet.

Next thing Myron and Jo tackled was their basement. This was made into a second living area, containing living room, bedroom, hobby shop, washroom and toilet. Upstairs, one attic bedroom was converted to storage by installing cupboards and shelves.

Outside alterations were saved until last. The Verburgs changed every window in the place. Front windows were enlarged and the old ones installed in the bedrooms. A sunporch was dismantled to become a patio, enclosed in Virginia creeper. The concrete floor was retained, but artistically painted to look like flagstones.

With water from a nearby slough, the Verburgs have made the grounds of their home into a show place—an island of greenery in this droughty land of the Sweetgrass. ✓



Guide photos

Above:  
The living room,  
which was remodeled,  
contains this fireplace  
with bookshelves  
at both ends.

Right:  
Converted barn  
makes an attractive  
sight, with landscaped  
area covering  
a well in foreground.



# Guide to Eggmanship

Prepared by Don Baron in co-operation with PROF. H. L. ORR, Poultry Department, Ontario Agricultural College.

## BEFORE EGG IS LAID

### Breeding

- Select breed of hens carefully. The following factors vary among different strains of birds: quality and color of shell, interior quality, rate of deterioration of egg.
- Watch Random Sample Tests in Canada and U.S. to see which breeds or strains score highest. Look for ones that produce eggs with desirable shell color, soundness and size, continuous high interior quality over prolonged heavy lay, and low incidence of meat spots.

### Feeding

- Feed properly balanced diet—it will affect color of yolk (light or dark), interior and shell quality, and nutritional value of egg.
- Follow feeding program that is recommended to you by the feed manufacturer.
- If mixing home-grown grains with purchased concentrate, follow carefully the recommended mixing and feeding program.

### Management

- Confine laying hens indoors. This practice is almost essential in today's farming.
- Housing must be properly insulated and ventilated, so birds will be warm and dry. Dripping walls and ceiling make damp litter.

- Keep litter dry for the health of your birds, and also for the cleanliness of birds and eggs.
- Slat or wire floors are satisfactory but more difficult to manage than conventional floors are.
- Provide an adequate number of nests for the size of the laying flock and keep nesting material clean.

### Health

- Keep pullets healthy, rearing them either indoors or on range; or purchase only healthy started pullets.
- Respiratory diseases like infectious bronchitis affect egg size, the shape, and interior quality.
- Follow the drug manufacturer's instructions for disease control. Some drugs can damage egg quality.

### Age

- Replace old layers with pullets. Young birds lay highest quality eggs. Slow continuous quality drop occurs during laying period. Eggs from older birds require even more careful handling.
- Force-molting does improve eggs' quality after many months of lay, and this improvement may be maintained for 6 months. But force-molting may only be justified under unusual short-term price and supply prospects.

## AFTER EGG IS LAID

### Gathering

- Gather eggs 3 or 4 times daily to reduce breakage, soiling, loss of interior quality.
- Sort out eggs that are to be washed, when gathering, unless all eggs are to be washed.

### Chilling

- Chill promptly after gathering, or after washing, if eggs are to be washed immediately.
- Build a walk-in cooler for adequate chilling. Plans are available through the Canadian Farm Building Plan Service. Once built, install egg room cooler and humidifier.
- Maintain storage room temperatures at 50° to 55°F. and relative humidity of 75 to 85 per cent, until eggs are marketed. Eggs lose quality 3 to 4 times faster at room temperature than at 50°.

### Cleaning

- Clean correctly to improve appearance, grade. Incorrect cleaning can lower quality, shorten keeping quality.
- Choose cleaning system carefully: (1) Damp cloth is too time-consuming except for small flocks. (2) Hand buffer leaves shiny spots. (3) Mechanical washers—immersion and brush types—are both satisfactory, if properly constructed and correctly used. They require accurate temperature controls.
- Wash immediately after gathering for greatest ease of cleaning. Next best—cool immediately after gathering and then clean within 48 hours.

### Washing

- Keep egg washers clean by washing thoroughly after every day's use.
- Keep room clean where eggs are washed.
- Water temperature in immersion-type machines must be above that of eggs and from 100° to 120°F. It may be higher in brush-type machines.
- Control time of immersion—not over 4 minutes at 120°, not over 5 minutes at 100°F.
- Change water in immersion machines after 6 baskets of dirty eggs, and 8 to 10 baskets of unsorted eggs, to prevent contaminating eggs with bacteria and mold spores.

### Packing

- Dry eggs thoroughly as they come from washer, then cool for several hours before packing. Molds and bacteria thrive in damp, warm conditions.
- Pack eggs in pre-cooled crates.
- Pack eggs large end up.

### Marketing

- Market at least twice a week to ensure higher and more uniform quality.
- Insist that your grading station operator: co-operates with flockowners in a quality program; protects quality of your eggs by such means as refrigerated trucks, refrigerated holding, and oil sprays, if necessary; emphasizes quality in his selling program.



BOARD OF DIRECTORS, Canadian Federation of Agriculture, who met at the close of the meeting to put the finishing touches on their plans for 1961.

# CFA's Quarter Century

*Delegates from the Federation's member bodies across Canada marked the organization's past and charted the course of its future activities at the 25th Annual Meeting*

THE 25th anniversary meeting of the Canadian Federation of Agriculture was a time for looking back as well as forward; for assessing what the organization has accomplished, and what remains to be done—both in the immediate and longer run future. This, then, was the business at hand as the four-day sessions got under way at the Chateau Laurier in Ottawa on February 20.

The look backward was accomplished by a specially prepared historical booklet; a national farm radio forum broadcast held in conjunction with the meeting; the presidential address; and, in honoring nine men, now retired, who have each made an outstanding contribution to the Federation and to the agricultural community.

This review of the first quarter century revealed that the Federation came into its own during World War II. Born out of the depth of the depression in 1935, when farmers were unorganized, it was nursed into growth by persistent persuasion and patience until 1939. Spurred on by the urgent needs associated with the war effort, it became fully representative of farm people in all parts of Canada in 1941, and obtained recognition as a body qualified to speak with one, united voice on behalf of organized farmers shortly thereafter.

As the war progressed, the Federation's influence grew. The organization emerged into the post-war era as a well established, well lead, responsible body whose views were being sought regularly in the councils of the nation.

The record of Federation accomplishments speaks for itself. All that needs to be reported here is that the organization has:

1. Either initiated or helped to negotiate every major piece of farm policy on the statute books;
2. Given strong voice to the combined wishes of the nation's farm families on questions of social, educational and cultural development; and,
3. Widened its activities and influence as a member body of the International Federation of Agricultural Producers, which it helped to establish.

This record, by almost any yardstick, and without examining a long list of specific achievements, reflects sound leadership and an effective approach in the work of the nation's general farm organization.

But it was the new Minister of Agriculture, when addressing the opening session, who seemed to put into words what was in the minds of the delegate body. While it was proper to celebrate the organization's anniversary, the Hon. Alvin

by LORNE HURD

Hamilton thought the process of looking backward over the years would only be profitable if the organization "used the knowledge and inspiration of the past to turn its thoughts forward to the future." He suggested that everyone associated with "the farming business should dedicate the next few years to an objective assessment of where we stand and where we are going."

## GOVERNMENT PROGRAMS

THE Minister issued a major warning in this connection. He felt that nearly everyone in the agricultural industry had based his thinking on a false premise—the premise that some day world population would grow to the point where there would be an effective demand for all the farm products produced, with the result that farmers would finally take their rightful place in society.

Mr. Hamilton said he did not intend to be a party to this false philosophy. He claimed that, in view of scientific developments and the changing techniques of production, farmers can't sit back and wait for population to grow so there will be a demand for all they produce. "To follow such a course," he said, "would be a disservice to agriculture."

Against this background the Minister reviewed the Government's farm programs and made these specific points:

**Farm Income.** Farmers are slowly catching up in income with other self-employed people, but the rate of increase by types of farming and by areas is not uniform. In particular, figures showed incomes in the Prairie Provinces to be consistently lower than elsewhere.

**Farm Credit.** Switching the administration of the Government's farm credit program from the Department of Finance to the Department of Agriculture has greatly increased the amounts being loaned. Loans have risen from a yearly range of \$8 to \$12 million to \$56 million in the last 9 months of 1960. The main purpose of the expanded program is to aid farmers in building up economic units, and thereby increasing incomes.

**Crop Insurance.** Since the Federal Government has enacted enabling legislation, it is now up to farmers and the provinces to see if it can serve a useful purpose. Crop insurance is not just for grains; it can be used for other crops as well.

**Price Stabilization.** A complete analysis needs to be made to see if better mechanisms can be devised to stabilize prices and protect the family farm unit. The Government is just beginning to learn how to use the new Price Stabilization Act.

## PRICE, PRODUCTION AND MARKETING POLICY

The essence of a statement approved by the delegates at the 25th Annual Meeting

"While agriculture will need a large measure of government co-operation and assistance in carrying out its programs, yet the CFA believes that overall government control of marketing, production and prices in agriculture is not a necessary or desirable direction for farm policy to take. Nevertheless, it is essential that greater order and stability of prices and production should be achieved in agriculture. The best means for achieving a maximum degree of such order and stability without an undue measure of government control or excessive loss of individual freedom and initiative, is through the development of producer controlled marketing.

"The CFA therefore takes the position that comprehensive development of agricultural co-operatives and producer marketing boards in

Canada should be recognized as the best means for putting agriculture on a more stable, orderly basis. The resources of organized farmers should be increasingly devoted to achieving this objective. Plans for doing so should be boldly conceived and quickly developed. While it does not hold out the promise of quick and easy solutions, it does hold out the best promise for permanent and satisfactory ones.

"The pursuit of such an objective implies, of course, the taking of concerted action on a national scale. It is evident that in most products isolated provincial action can be expected to achieve limited objectives only. Effective planning and co-ordination of price, production and marketing programs require action on a regional or national scale."

**Farm Product Sales.** Opportunities exist, if energies are applied in seeking them out. Much more can be done.

**ARDA Program.** The Agricultural Rehabilitation and Development Act program (described in the February issue of *The Guide*) will be the biggest and most costly ever undertaken by the Federal and provincial governments. The purpose is to improve the lot of small and low income farmers. The Minister stressed the need for full co-operation between the senior governments, and between governments and farm organizations, if the program is to succeed.

Mr. Hamilton concluded by saying that farm organizations, food processors and governments alike must turn their sights to the global scene and search out opportunities for expanding markets. "If we want to see the farm share of national income raised," he said, "it can't be done by looking inwards, but only by looking outwards."

#### TRADE AND TARIFFS

**THE CFA** delegate body agreed with Mr. Hamilton's closing statement, but they didn't think the Government's actions were entirely in keeping with it.

After commending the Government for calling the December Trade Conference to promote Canadian exports abroad, and for the leadership it is giving to the development of an international food distribution program, speakers to the various resolutions on trade and tariff policy made these points abundantly clear: *First*, the world situation demanded Canada be more generous in distributing its abundance of food to underdeveloped nations on a non-commercial and continuing basis, and that such action would receive the support of the majority of Canadians on both economic and humanitarian grounds. *Second*, opportunities in the international market for commercial sales of farm products were not being fully exploited. *Finally*, some of the Government's trade policies were not in the best interests of agricultural producers.

The meeting passed resolutions calling on the Government to:

- Establish a program aimed at increased utilization of Canadian food products abroad.
- Set up a revolving credit fund to permit underdeveloped countries to buy Canadian farm produce.
- Commence a drive to expand markets in the newly independent countries of Asia and Africa, particularly for agricultural products.
- Accelerate trading negotiations with Communist China.
- Avoid further action, by way of protective tariffs or other import restrictions, which would endanger trading relations with Japan.
- Remove tariffs and sales tax on all dairy, poultry and livestock equipment used on farms.
- Reconsider the decision to increase valuation on imported cars for tariff purposes.

#### WORLD FOOD PROGRAM

**G**REAT emphasis was placed on the need for the early establishment of a World Food Program. Guest speaker James G. Patton, president of the National Farmers Union of the United States and of the International Federation of Agricultural Producers, spoke of this need in these terms:

"Organized agriculture has the obligation to urge governments to act, to face up to the challenge of the two great struggles—one for *food*, the other for *freedom*. The challenges of the emerging people require action on our part if civilization is to survive. Otherwise, we join the procession of extinct civilizations which were deaf to the demands of their time."

H. H. Hannam also devoted a major part of his presidential address to the subject, and concluded by stating: "I have said often and I am convinced that a world food program, jointly supported and directed by the community of nations, could well be the next great step forward in human history."



[Capital Press Service photos]

**LEADERS HONORED.** A. H. Mercer, E. Kitchen, H. H. Hannam, R. Grant, G. MacMillan and J. H. Wesson were among those made presentations at the 25th Anniversary Dinner in recognition for past service. Others so honored, but unable to attend, were: J. A. Marion, E. J. Chambers, Senator H. C. Bois and Ben Plumer.

The CFA resolved to recommend that, through the Food and Agriculture Organization of the United Nations, a program be undertaken to:

1. Receive from nations having the ability to do so, undertakings to contribute to an internationally conducted program of food distribution to areas of need. Such contributions could take the form of commitments to supply food, or could take the form of funds or necessary services for transporting food contributions to needy countries.
2. Receive and appraise information of food needs, and, on the basis of such information and the requests of participating nations, carry out the equitable distribution of the food supplies made available.
3. Co-ordinate and advise on the orderly conduct of non-commercial food distribution in its broadest implications. The aim would be to give direction and purpose, through the United Nations, to all activities contributing to the goal of an international food program.

#### POLICY ON PRICE, PRODUCTION AND MARKETING

**A**POLICY statement on price, production and marketing of farm products, together with supporting resolutions, was debated at length and endorsed without major amendment. Their central theme, as taken from the policy statement, is set out elsewhere on the accompanying page.

The question which the CFA is trying to answer is this: "What, if anything, can be done through national policies of management and planning of agricultural prices, and agricultural production and marketing, to bring an end to or at least largely correct agriculture's problems of low and uncertain prices, (Please turn to page 16)

#### Anniversary Congratulations

Here are excerpts from some of the messages received by the Federation during the meeting:

... Best wishes to your organization on its 25th Anniversary. Your farmers and ours share many interests and objectives. World events make it more important than ever that we continue our close co-operation and joint efforts to use agricultural abundance in meeting human needs.—Orville L. Freeman, Secretary of Agriculture, U.S.A.

... Congratulations and all good wishes on the occasion of your silver jubilee. May your organization continue its proud record of service to Canadian and world agriculture.—J. K. Knowles, President, National Farmers Union of England and Wales.

... Our warmest congratulations to the CFA on its 25th Anniversary. May the next quarter century bring equal success as you work together to serve Canadian agriculture.—Mrs. H. G. Taylor, Secretary, Federated Women's Institutes of Canada.

... Heartiest congratulations on your 25th Anniversary.—B. R. Sen, Director General, FAO.

... Hearty congratulations to the CFA on 25 years of service, and greetings and best wishes of Grange families in the United States on the occasion of your 25th Annual Meeting.—H. D. Newsom, Master of the National Grange, U.S.A.

... On behalf of the Agricultural Council of Denmark—Landbrugssraadet—and the Danish Farmers Association, I express hearty congratulations and best wishes to the CFA.—A. F. Knudsen, Agricultural Counsellor, Danish Government, Washington.

... Sincere congratulations and best wishes on the occasion of your 25th Anniversary. The American Farm Bureau Federation has valued the opportunities to co-operate with the CFA, and we appreciate the value of a strong farm organization in our neighbor to the North. —Charles B. Shuman, President, AFBF.



**RADIO FORUM TRIBUTE.** Herc Country Guide editor Lorne Hurd speaks on the CFA's wartime accomplishments over an hour-long National Farm Radio Forum broadcast marking the organization's 25th Anniversary. The broadcast, held in conjunction with CFA meeting, was conducted from Ottawa Coliseum.

inadequate and unstable income, and overproduction for the market."

It was significant that the Prime Minister's substitute at a Government-sponsored luncheon, John C. Pallett, Q.C., M.P., made this statement: "Our Prime Minister (if he had been here) would have told you that the goal of his Government, therefore, had to be a sound, stable and self-reliant industry providing a level of living comparable to other occupations . . . rather than the creation of a kept industry shielded from reality and protected from all need to exercise self-help and initiative in adjusting to changing conditions of technology and demand."

Based on these statements the present Government and the CFA, at least in broad terms, see eye to eye on the role that each must play in future years.

#### TRANSPORTATION POLICY

THE delegate body endorsed the submissions made by the CFA and the western farm organizations to the Royal Commission on Transportation with respect to preserving the present status of the Crow's Nest Pass freight rates on grain. In particular, the meeting endorsed the protest of the submissions against the following:

1. Attempts to make grain traffic the scapegoat for the financial difficulties of the railways, which arise from many different causes, including loss of traffic to other forms of transportation.

2. Singling out grain traffic as the subject of a cost study carried out

by controversial methods, without affording opportunity for comparison with results which would be attained by making similar studies with respect to other commodities.

3. Any proposal to describe financial assistance to the railways as a subsidy to farmers.

4. Any proposals for widespread abandonment of branch lines or any such abandonment without full consideration by the Board of Transport Commissioners of the public convenience and interest involved.

The meeting also resolved to urge the Government to put the feed freight assistance policy on a permanent basis, and to make it cover any future freight increases; and to make water and freight rates in Canada competitive with U.S. rates for corn and wheat moving into Eastern markets.

Delegates passed a resolution commending the Government on its action to prevent the rail strike, and urged that it take immediate steps on all strikes pertaining to the movement of grain, using compulsory arbitration if necessary, and insisting on a secret ballot if a strike vote is to be taken.

#### COMMODITY RESOLUTIONS

What follows is a brief summary of the more important resolutions on specific farm commodities.

**EGGS AND POULTRY.** Delegates agreed to ask the Government to: (a) enlarge the basis of the deficiency payments on eggs, so they will be important enough to be of



[Capital Press Service photo  
James G. Patton, IFAP president, addressing the CFA convention on the need for World Food Program.

some economic value to a minimum-sized economic unit; (b) to extend such payments to cover all categories of Grade A eggs; and (c) to compute such payments on a regional basis.

They also agreed to point out to the Government the failure of its egg deficiency payment plan to stop integration, and to ask Federal authorities to investigate poultry integration schemes with a view to prosecution, or the introduction of necessary new legislation to control integration in general and to forbid the more vicious practises involved.

**LIVESTOCK.** In the hog field, resolutions were passed requesting that deficiency payments for the product be computed and paid on a 3-month basis rather than yearly, and that the quality premium on Grade A hogs be raised to \$4.

In the sheep field, delegates agreed to request that: (a) the price support level for lamb in the Maritime region be brought up to the level for Montreal and Toronto; (b) establishment of a joint Federal-Provincial lamb bonus policy on carcasses grading Choice and Good, and (c) the maximum weight limit on Grade A lambs be increased to at least 115 lb. Other decisions made included requests to continue the present deficiency payment system of price support for wool, and to expand sheep research on diseases and management problems.

The Convention also agreed to ask the Government to increase indemnities paid for grade and purebred cattle, reacting positively to brucellosis and T.B. tests, to \$100 and \$200 respectively.

**GRAIN.** The CFA reaffirmed its support of the Canadian Wheat Board system of marketing prairie grains, and of the International Wheat Agreement.

It resolved to promote the realization, at all levels of government, of the need at the present time for income assistance to grain producers from outside the industry to effect adjustments and to meet production costs.

(Please turn to page 101)

## Thousands of swine worm eggs in one cubic inch of hog lot?

*One female large roundworm lays up to 1,400,000\* eggs a day . . . One female nodular worm lays 5 to 10 thousand eggs.*

\*KELLEY, GEORGE W., PH. D., U. OF NEBR. (VETERINARY MEDICINE, VOL. LI, NO. 3, P. 97, MARCH, 1956)



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# Managed Woodlots

## Earn \$15 Per Acre

**New Brunswick's Tree Farm**  
**Program has turned wood into the province's**  
**most popular farm cash crop**



Ken Dunphy (r.) takes time out from haying to talk with extension forestry specialist J. Torunski about road plans for his 600 acres of woodlot.

SOMETIMES when you are hunting high and low for something, you finally locate it right under your nose. That's just about what happened in New Brunswick. Farmers there, like others right across the country, have been searching for new cash crops to help meet rising costs. Canning crops, blueberries, orchards, even grass fed to steers, are helping to meet those needs. But now, the best cash crop of all has suddenly caught their attention—it's the farm woodlot.

Farmers, like Ken Dunphy of Nashwasak Bridge, are discovering they can earn \$10 or \$15 per acre every year in the woodlot by using modern management methods. They also find that woodlots are ideal to balance the overall farm management program by providing work during slack times, especially in winter.

Dunphy is one of a couple of hundred New Brunswick farmers who is enrolled in the New Brunswick Tree Farm Program. Like the others, he takes guidance from a forestry specialist and follows a long-term, woodlot management plan. As a result, Dunphy is cutting several times more wood from his 600-acre woodlot than he ever did before; his woodlot is in better shape than ever; and he says: "If I had known as much about woodlots 20 years ago, as I have learned in the past 4 years, I could have made my living all these years without cattle at all."

Ken Dunphy is a slightly built, talkative man with fine features and a few wisps of white hair left on his balding head. He has been a farmer and community leader all his life. He and his two sons work 250 acres of land, run a 30-cow dairy herd, and ship milk to Fredericton. Ken, himself, is a director of the big interprovincial co-operative—the Maritime Co-operative Services.

But his calloused hands and stout fingers betray the work he has done with an ax and saw. His first love is the woods where he has spent every winter for 40 years. He knows the woods from a lifetime of experience, but when he heard about the forestry extension program being set up for farm woodlot owners 4 years ago, he wondered if woodlot management, like farm management, was changing. He decided to find out.

When he joined the program, he was visited by John Torunski of the University of New

by DON BARON

Brunswick Forest Extension Service. Torunski is a young man who knows forests and trees thoroughly. He was raised in Quebec and graduated in forestry from the University of New Brunswick. He has studied woodlot management practices in Europe (where certain species of wood are worth up to \$300 per cord) and in several provinces across Canada. He is a pioneer in his own way, preaching the gospel of woodlot management with all the zeal any agricultural representative ever brought to farm extension work.

Torunski sees woodlots as an ideal farm cash crop. "Once a well-managed woodlot in New Brunswick is in production, it can produce over a cord of wood per acre, worth \$10 to \$15 annually," he says. "One man can look after 100 acres and do the work himself."

Torunski spent a couple of days walking through Dunphy's woodlot. He wanted to see how much wood was ready to cut, where it was located, whether insects or diseases were problems. He checked the road system and logging problems. He was searching for ways to bring the woodlot to peak production quickly.

On this visit, he also enquired about Dunphy's farm program, because the woodlot and the farm must complement each other if they are to be successful. He talked over long term goals with Dunphy. Then he went back to his office, got the aerial map of that specific farm (all of New Brunswick has been photographed from the air), and correlated what he had seen in the woods with what the photo enlargement revealed.

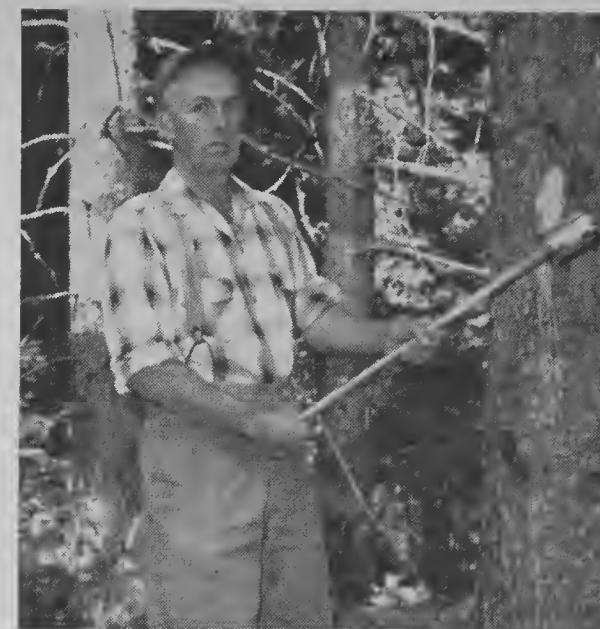
With this information, he drew up a long term management program for the woodlot.

"No two woodlots are the same," Torunski explains, "so no two management plans can be the same either."

For instance a man like Dunphy, with cattle to look after and hay and harvest to take off, has no time for the woods in summer. Others may have spare time in the summer, and this should be considered. Some people, with time on their hands, may want to take more particular care of their woodlots, and this calls for another kind of program. Different woodlots include different species and ages of trees, and different terrain as well. All these factors affect the management program.

COMMENTING on his province's tree farm program, New Brunswick's Deputy Minister of Agriculture, Reg Gilbert, who played a big part in its success, says that woodlots offer the best hope for many farmers to boost their income. "Woodlots are the most overlooked cash crop I know of," he says. "The average woodlot produces only one-quarter of a cord of wood per year—yet it can be made to produce several times that much. We have 2 million acres of land in farm woodlots in this province, but only half of it is improved. Our program is to show woodlot owners how to make money with their trees."

(Please turn to next page)



[Guide photos  
 Never happier than when walking through woods, ax in hand, Dunphy marks this particularly good red spruce as ready to be harvested as a log.

### Recommended Woodlot Practices

- ✓ Walk through every area in the woodlot at least once every 10 years to see what is there. Harvest trees that are ready, especially over-mature and dying ones.
- ✓ When working through an area, cut down dead trees as well as those severely infected by disease, even if they can't be sold.
- ✓ Build a good road system through the woodlot, to save time hauling out wood. Roads should be 12 or 13 feet wide to carry trucks.
- ✓ Get out and find a market for your trees. Take a few days every year to find out what kind of wood is selling and who wants to buy.
- ✓ Consider leaving healthy trees standing for a few years, if the market for such species is not good. Markets change quickly, and such trees could be in demand in a few years.



In a good stand of balsam and red spruce, Dunphy marks the poorest trees for harvest as pulp. Remaining trees will make logs in 4 or 5 years.

(Continued from preceding page)

The Tree Farm Program in New Brunswick is sponsored by the Canadian Forestry Association of New Brunswick in co-operation with the University of New Brunswick Forest Extension Service, the New Brunswick Dept. of Agriculture, the New Brunswick Dept. of Lands and Mines, and the pulp and paper companies of the province.

To find how successful it has been, all you've got to do is try to buy a woodlot in the province today. Five years ago, there were plenty available at giveaway prices. Today, asking prices are high. People have begun to see what a woodlot can do.

THE story of overlooked wood-lots is similar in other areas of Canada too. In Ontario, a government forestry expert told a meeting of conservationists recently that there are more than five million acres of privately owned productive forestry land being mismanaged in southern Ontario. These woods are being undercut, or overcut, or being used to exercise cattle. Yet, he said that an additional \$13 million worth of timber could be taken from these lots if they were properly worked.

Farmer Will Barrie told the same meeting his woodlot is one of his most valuable farm assets. It produces revenue, helps preserve his water supply, provides wind protection, and is a conservation area for wildlife. But he said most farmers will not reap full benefits from their woodlots until they take them as seriously as people in Sweden do. In that country, he said, no farmer would think of cutting trees without the advice of a professional forester.

Waterloo County agricultural representative, Sandy Forsythe, agreed with Barrie. "Most woodlots are in the category of forgotten and neglected parts of the farm."

WHILE the farm woodlot has been overlooked, it's a safe bet that this won't continue much longer. In sketching out the long-awaited Rural Development policy for the first time this winter, Canada's Minister of Agriculture, the Hon. Alvin Hamilton, called woodlots one of the keys to a new deal for farmers. He stated that the demand for paper and paper products from Canada is rising rapidly. In 15 years it will be 140 per cent higher than it is today. Even now, he said, the end is near for the natural forests available for wood products. Demand is driving up prices. Pulp prices have climbed to \$12, \$14, and even \$16 a cord to farmers.

Mr. Hamilton added that in Quebec, the forest industry will be forced to come back to the fringe farm areas. Farmers will cultivate their woodlots intensively there. He said income from woodlots can be boosted as high as \$30 per acre per year. When farmers realize this, he predicted, they will begin to produce the supplies of pulp that the paper industry requires. This will not only bring them an important new source of cash—it will take land out of food production and help to relieve the food surplus problem.

# Through Field and Wood

No. 30

by CLARENCE TILLENIUS



THE white sheep of the mountains have ears forever tuned for danger. A vast stillness pervades the peaks: but continually from far and near comes the sound of falling rock. On every mountain face a constant erosion goes on. Rocks and talus, the night's frost turning to moisture in all the tiny crannies, expand in the sun and lose their precarious hold. At the base of every cliff long slopes of scree give mute evidence of the countless centuries this process has gone on. The sheep are accustomed to this constant rock-fall and pay it no visible attention, even when a minor avalanche goes down with a roar like a distant express.

Yet there must be a difference in the sounds imperceptible to the human ear. Many times I lay concealed watching a band of feeding rams. To the sound of slithering rock they seemingly gave no heed. Once in a while at a distant clatter one or another would lift his head

and look. Almost always this meant that other sheep were coming and very soon they would appear out of some cleft in the mountain.

The first time this ability to distinguish struck me, I had for half an hour been watching some rams which fed into view below me without knowing I was there. It was a morning of glorious sunshine after a sharp night's frost, and from far and near came the sounds of cascading rock. The rams did not even lift their heads.

I thought I would get a little closer, thinking that any slight sound I might make would never be noticed in the general symphony of falling rocks. But as I worked around a shoulder of the mountain I inadvertently set rolling a pebble no bigger than a hen's egg. A moment later, peering out from a fold in the rocks I saw the whole band in flight. Without looking back they bounded up a dizzy ledge, around the side of the mountain and out of sight. ✓

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## Thoughts on

# Milk Marketing

*A sharp analysis of the dairy problem, and some far-reaching proposals to deal with it*

by H. H. HANNAM, president, Canadian Federation of Agriculture

THE dairy problem in Canada is a major national problem, more particularly for six provinces, just as the wheat problem is a major one for Canada and more particularly for the three Prairie Provinces. Of course these are interrelated with all farm commodity problems throughout Canada.

The Dairy Farmers of Canada is the voice of milk producers from coast to coast. In this organization rests the responsibility for giving leadership to the dairy industry. It also shares the task of giving leadership to agriculture as a whole, just as, because of the interrelationship of all agricultural policies, the producers of other commodities must share that responsibility with this organization.

The problem we have before us at this meeting, as I see it, is:

1. How to meet a crisis in dairy policy in the next few months, and
2. How to get a program under way, designed to face the long-term problem of the dairy industry.

### CAUSE OF DIFFICULTIES

A COMBINATION of a number of factors makes the task facing us a complex and complicated one. Fundamentally, however, the cause is a double-barrelled one: a lagging or declining demand both at home and in the world market, and, on the other hand, rapidly expanding productivity and output in milk production.

**Lagging Demand.** The consumption and demand aspect is the most serious. Domestic demand for butter has been declining steadily. This trend must be arrested and if possible reversed. With this downward trend, an important market for the dairy industry is gradually disappearing. A per capita consumption of butter of 27 lb. in 1948 has dropped to 17 in 1960. And the per capita consumption of margarine is now around 9 lb. At the same time, the increase in per capita consumption of fluid milk is not keeping pace with our increase in population.

The world market situation and price is less favorable than a year ago—largely for the same reasons.

**Abundant Supply.** On the production side, our output of milk has been expanding from one record to another. This has been a sound and desirable trend, because it has been achieved by increased production per cow in the face of

declining cow numbers. An FAO report says our production per cow 2 years ago was 35 per cent above prewar, while our number of cows was down 17 per cent. In other words, the dairy industry in Canada has the ability and capacity to continue to oversupply the market demand—perhaps only by a small margin—in the years immediately ahead. Keep in mind also that feed grains are in abundant supply and promise to be for some years.

Because of a combination of these factors, the price support program over a number of years has accumulated substantial stocks of butter—an increase in stocks which it will not be wise to permit to continue unchecked. The wide differential between the price of butter and that of butter substitutes encourages the trends I have mentioned. And no one argues that the support level for butter is high in contrast with the record high and rising farm costs of production.

TWO other matters that have an influence on the consumption side of the picture are worth mentioning.

**Diet Scars.** The domestic market has been unfavorably affected by dieting and diet scares. Canadians have such a plentiful supply of a wide range of wholesome food products available at relatively low prices that, in the interests of better health, a large percentage of our people have necessarily turned to dieting. Also, a substantial number of citizens avoid certain foods because of health scares expounded without adequate scientific backing.

**Stingy Service.** With the exception of the best hotels and restaurants, most of our eating places in Canada follow a practice in serving butter that tends unduly to restrict consumption. I refer to the stingy little single pat of butter set down for each customer at the beginning of a meal. Of course they claim that another pat is available upon request. However, the second or third one seldom materializes because the waiter or waitress is not on hand to make a special trip to serve a second or a third stingy little pat.

I have found it general in Europe where I've been, that a dish of butter pats is placed on the table so that patrons may help themselves at any moment they may wish additional butter. The co-operation of businessmen, press and urban citizens generally to have this practice changed would be greatly appreciated by farmers.

### Proposed Self-Help Approach

Dr. Hannam suggested these steps in developing a long-term, self-help program for dairying:

- Launch plans for dairy and farm policy research.
- Improve relations with the consuming public, and between milk producer groups.
- Work out a system of regulating supplies to effective demand for milk and milk products.
- Establish a national agency to administer an orderly milk marketing program throughout Canada.

He concluded: ". . . a producers' orderly marketing program, co-ordinating the supply and price as between the various dairy products, together with price supports, could place the dairy industry in a position where government subsidies would not be necessary."



Williams Bros. photo  
H. H. Hannam, as he posed at the annual meeting of Dairy Farmers of Canada in January, where he delivered this address to fellow dairymen.

### EXPANDING THE MARKET

EVERY effort to expand markets both at home and abroad will be helpful. Three such efforts would be advisable:

- By lowering the retail price of butter to consumers.
- By a school milk program. A program of this type could hold out hope of expanding domestic disappearance appreciably, and in the long run help to improve health and insure expanding consumption in the future.
- By a world food bank program under the United Nations.

The resolution passed unanimously by the United Nations General Assembly recently supporting the idea of a world food bank type of program is at least encouraging. The U.N. request for the development of such a program is now in the hands of a 13-nation committee of FAO, of which Canada is one. Should such a program be evolved and adopted, it could mean an expanded outlet in underdeveloped countries for skim milk and whole milk powder. These two products, along with grain, are the ones best suited for distribution to undernourished peoples. They are the only farm products used extensively in international welfare programs. It is gratifying to us that the Canadian delegation gave a strong lead in the U.N. General Assembly for the action taken there. It was, in fact, a Canadian delegate who presented the resolution, with the support of a number of nations, to the Assembly.

### SHORT-RUN PROPOSAL

FOR the short-run position we need, at this time, to put forward a proposal for immediate action designed to reverse the downward trend in butter consumption and to strengthen and stabilize the price of milk, particularly for milk going into products other than fluid milk and butter.

A substantial payment per pound on butter in order to lower the retail price to the consumer by a similar amount would seem a desirable and effective way to meet the present situation.

While farmers generally have no desire to see any branch of agriculture placed permanently on a subsidized basis, such action can be justified as an emergency measure to meet an emergency situation.

Even though the cost of carrying out such a measure will be substantial, I believe there should be no hesitation to undertake it on that account. Taxpayers would benefit directly by their saving in the purchase of butter. The benefits of increased productivity in agriculture during the past two decades have gone largely to consumers in lower food prices. And in view of the relatively

low returns received by a large proportion of farmers, it is a fact that farmers have been, in reality, subsidizing other sectors of our population.

### LONG-TERM POLICY SUGGESTIONS

THE development of a long-term program, that will assure stability of returns to dairy farmers on a level that compares favorably with other groups in agriculture and other sectors of the general economy, is likely to be a formidable one.

Since the trend is likely to continue toward improved tillage practices, greater mechanization, larger farms, better livestock, better farm management, and accordingly higher production per cow, it seems obvious that output of milk, during the decade of the '60's, will continue to outstrip market demand. How then can we effect a substantial improvement in price or in returns for milk production?

**Regulate Market Supply.** The thinking is becoming widespread amongst farmers that we may be compelled to regulate our market supply in order to enable us, roughly at least, to gear our production programs in line with what markets will take. This has already been done by fluid milk producers. But it may be necessary in the years immediately ahead for other milk producers to move toward a somewhat similar form of regulated marketing.

**Adopt National Approach to Marketing.** Our experience in orderly marketing programs in the past two decades has persuaded us that we must inevitably move toward regionally and nationally directed programs. To get substantial improvement in farm incomes, I am convinced that we must adopt a national approach to marketing programs.

For dairy farmers, it seems to me that we are not likely to have substantially improved incomes, greater stability in farm incomes, and reasonable equity between the various commodity groups, unless we can have a program and agency with authority to direct milk from time to time into its various products according to the demands, or probable demands, of the market. In other

words, the market for milk and dairy products is becoming increasingly a national market, and accordingly the best overall solution must be sought from that approach. Obviously this will not be done in a year or two. In the meantime, it seems realistic to approach this type of program, as best we can, provincially or regionally.

I am convinced that if milk producers are to have the kind of orderly marketing that will serve them best, they must prepare themselves to undertake it as self-help programs.

It is my thought that a producers' orderly marketing program co-ordinating the supply and price as between the various dairy products, together with price supports, could place the dairy industry in a position where government subsidies would not be necessary.

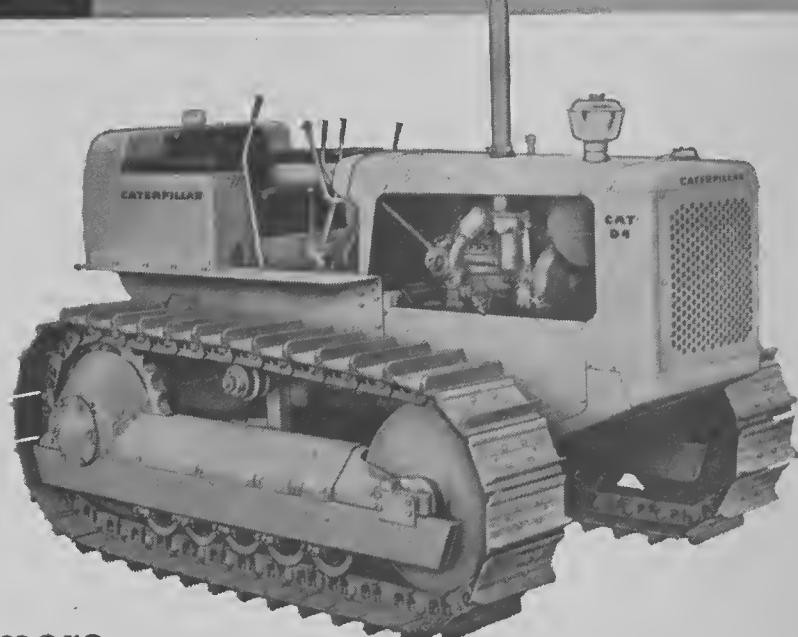
**Dairy Policy Research.** Since we cannot expect the active participation and united support of dairy producers if our leadership is confused or uncertain, surely our first and best move at this time would be to set in motion plans for a special study and some research into

dairy policies. A start now could be the means of achieving a full scale and forward-looking program a few years ahead.

**United in Thinking and Purpose.** Since farmers are a decreasing proportion of the total population and now only a minority group, it is very important that we give thought as to public opinion generally toward agriculture. If we have confusion, criticism, and misunderstanding continually emanating from our meetings and our spokesmen, we will have ourselves to blame for public ill will toward us. Let us have all the

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CAT  
D4  
TRACTOR



helps Canadian farmers succeed against odds!

"I have operated Caterpillar track-type Tractors with great economic success for the past 30 years," states Joseph Havixbeck of Rosser, Manitoba. Mr. Havixbeck immigrated to Canada 31 years ago. He worked for three successful farmers before buying his own farm in 1945.

"When I bought this farm," he continues, "I also bought a used, 6-year-old Caterpillar RD4 Tractor. It carried me until 1951, when I purchased a D2. In 1960, due to my continued success with Caterpillar-built Tractors, I bought the D4 that I am now using.

"For efficient farm operation, Caterpillar track-type Tractors are the answer. This is due to the ability of these machines to get out and work with trouble-free operation and low-cost production per acre."

Today's D4c, illustrated above, has 52 drawbar HP—45% more than its early predecessor, the RD4 which Mr. Havixbeck used until 1951. The new Series C also offers lifetime lubricated rollers and idlers, greater lugging ability, dry-type air cleaner, quick-reversing transmission, and a full range of attachments—including "swing-around" tool bar and internally-mounted hydraulic control.

See the tractor that can help you to greater success—the new D4c. Ask your Caterpillar Dealer for a demonstration.

**CATERPILLAR**

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

Mr. Havixbeck's D4 pulls a 16-foot plow with 28-22" discs, preparing land at 7 acres per hour for planting wheat. Diesel fuel expense is 5½¢ per acre!



"Well . . . there goes my appointment with the dentist."

Caterpillar of Canada Ltd., Toronto • Caterpillar Tractor Co., General Offices, Peoria, Illinois • Caterpillar Americas Co., Peoria, Illinois • Caterpillar Overseas S. A., Geneva • Caterpillar of Australia Pty. Ltd., Melbourne • Caterpillar Brasil S. A., São Paulo • Caterpillar Tractor Co. Ltd., Glasgow

debate we need amongst ourselves, but let us realize that one of our strongest assets will be to be united in our thinking and our purpose behind one general program.

In line with this thought, surely it is self-evident that programs of one commodity which gains at the expense of another is unwise; that regional difference and bickering in public are a handicap to the success of the industry; and that rival programs between breeds are in the end almost sure to be harmful to the best interests of the dairy industry.

**Strong Organization and Leadership.** The business world is becoming more and more a world of big business. To function in this business world, the successful farmers of the future, essentially family farms, will have to function more completely on an organized basis. In all of our organizations we need a stronger and more active membership and more widespread vigorous support behind a constructive program.

Through nation-wide general farm organization, farmers must be in a position to give vigorous leadership to their industry in the province, in the nation, and in the international field as well. And such leadership must be enlightened leadership. This means that the great majority of farmer members need to be well informed, not only about their own program features, but about national and international affairs.

For this reason we have been strongly recommending a new development in research, that we speak of as "farm policy research."

While this picture I have drawn of the dairy situation in Canada is not a pretty one, I am not pessimistic about it. I believe it will be possible to work out a long-term program for dairy producers more successfully and more effectively than for some other commodities. Most of all, it will take study and research and the very best type of united, organized action. V

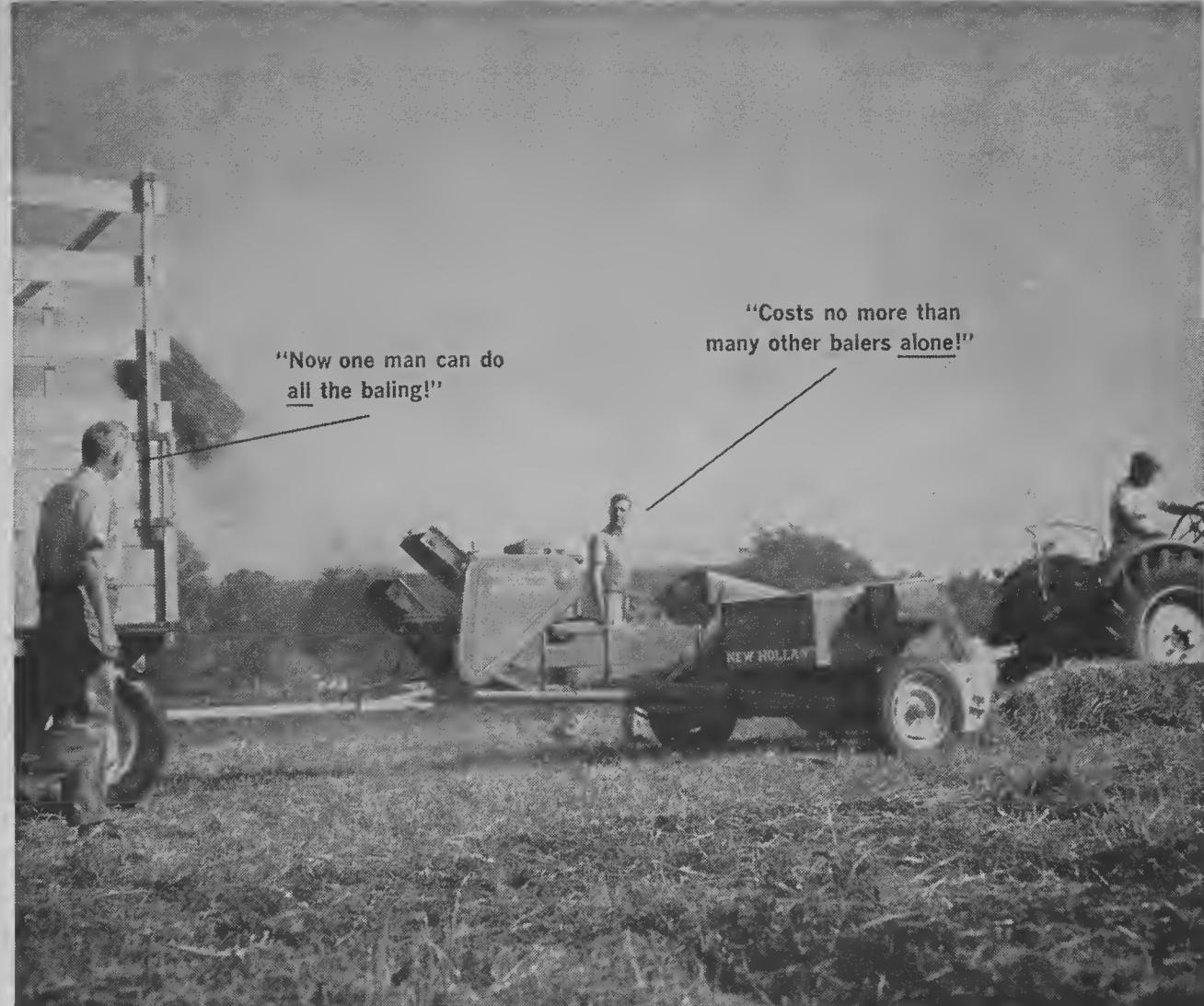
### Delay— But Don't Be Late

DELAYED seeding is very different from late seeding. J. O. Forbes of the Manitoba Department of Agriculture points out that delayed seeding involves very early cultivation to encourage germination of wild oat seeds, then a wait of 3 to 6 weeks, followed by a second cultivation before sowing. Late seeding means waiting well into spring before any cultivation is done.

Many farmers confuse these quite different practices, and they are often disappointed when late seeding proves unsuccessful.

Mr. Forbes advises farmers not to delay seeding over the entire farm, but only in the most seriously infested fields. Late harvesting of an entire crop could be disastrous in some years.

Crop yields are usually reduced if sowing extends into June, but this is a sacrifice that must be made for wild oat control. Three years of delayed seeding on a field will reduce the number of wild oats greatly. Ideally, the field should be worked during the previous fall. V



New Holland Compact Hayliner 65, with Bale-Thrower, costs no more than many balers *without* automatic wagon-loading feature! This labour-saving advance is also offered on the larger Hayliners.

## Now bale twice as fast with half the labour!

Today there's a new way to bale—that lets one man bale and load faster than a 2- or 3-man team! Fully proved on hundreds of farms. Choice of five baler models, including new Compact model.

Here's the biggest farming news of '61—*proved, practical one-man baling!* Now one man can bale and load—in half the time it takes with hand-loading!

The new system consists of a New Holland Hayliner plus a simple, sure-fire mechanism that "airlifts" the bales into the trailing wagon. You position the bales from the tractor seat. Doesn't miss—even on turns.

#### What it costs

Because of its basically simple principle, this New Holland baling method costs surprisingly little. In fact, the lowest priced baler—the new Compact Hayliner 65 with Tele-Flow feed—costs no more with Bale-Thrower than many balers without automatic wagon loading! Actually, any Hayliner model can soon pay for itself:

- You will save your own time, because you will bale steadily at much faster speed.
- You will save labour costs. Instead of loading wagons, your helpers can be doing other, more profitable work. You needn't hire extra help for haying, either.

#### At your dealer's now

If you already own a twine-tie New Holland Hayliner, you can easily convert to one-man baling. If your present baler is another make, your New Holland dealer will offer you a generous trade-in, and terms that let you pay as you save. See him right away—plan to enjoy the savings of one-man baling *this year!*

**BALER BOY TWINE** gives you imported twine economy, plus New Holland's rigid quality control. For extra strength, ask for New Holland's Super 9 or Long 10 twines.



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"First in Grassland Farming"

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Cyrville, Ontario, Canada.

Please send full information about your Hayliners with automatic wagon-loading feature. I put up \_\_\_\_\_ tons of hay per year.

Name \_\_\_\_\_

Address \_\_\_\_\_



## What Colostrum Does

HOW important is colostrum? Dr. J. M. Asplund of the University of Alberta says that unless baby pigs are fed with colostrum within 24 hours of birth, their chances of life are negligible. It is essential for the health and growth of calves and lambs, too.

It was thought for some time that vitamin A might be the essential element in colostrum. Dr. Asplund maintains that while vitamin A does play a part, the important fraction consists of antibodies — the disease fighters which the human child has at birth. The young pig is born without these antibodies and must rely on the first milk of its mother.

Scientists are still trying to discover how colostrum works. So far, they have discovered that it is the antibodies of the colostrum that are chiefly effective, that the colostrum is absorbed through the intestinal tract, and that it must be absorbed within the first 24 hours.

There is some evidence that colostrum of some species may be partly interchangeable. Cow colostrum appears to be satisfactory for lambs. Both calves and lambs show greater disease resistance than pigs at birth, but their resistance is not very

## Easing the Load



Guide photo  
Hans Mueller feeds grain and silage mechanically on his Joffre farm, Alta.

strong and they must have colostrum in the first 24 hours. Trouble occurs sometimes with lambs that are put straight on the bottle. V

### The Part Played by Shrinkage

HERE'S a way of looking at the cattle shrinkage problem. M. A. Kirkeide of the North Dakota College of Agriculture says that a lower price per pound on cattle, as they stand on the farm or ranch, can be more profitable than a higher pound price when too many pounds are subtracted for shrinkage.

For instance, if you have two offers, one for a 400-lb. steer at \$24.50 per hundred without shrinkage allowance, and another of \$25 per hundred with 4 per cent shrinkage, which is the better deal? The first offer will net \$2 more. Shrinkage tables show a steer selling at \$25 per hundred will bring \$24.50 at 2 per cent shrink, or \$24 at 4 per cent.

Obviously, shrinkage is important. But what can be done about it? Kirkeide suggests you choose the type of transport best suited to your needs and conditions. Send an attendant along if shipments are large. Keeping cattle off feed and

## Now in one mower line all the features farmers demand!

Cuts clean . . . cuts smooth . . . cuts fast!  
Matches mowing to your haying speed!

No matter what type of mower you prefer, you get more field-proved features when it's a New Holland! For example, check the quality features of the New Holland "47" semi-mounted Mower:

- Heavy-duty guards stay in line. Firmly seated against extra-thick cutter bar.
- Universal hitch fits most popular make tractors.
- Ledger plates are beveled; keep their sharp, saw-tooth edges.
- Pitman sheave and flywheel are cast in one piece to absorb shocks. Fewer bent shafts and sheared keys.
- V-belt sheave is quiet; quickly adjusted for proper tension. Gives slip clutch action without complicated adjustments.
- Tilt adjustment (crank type) gives you clean cutting action in a wide variety of crop conditions.
- Built-in lead and lead adjustment means cleaner cutting with less power.
- Double-hinged inner shoe and shoe support, both front and back, give extra sturdiness and flexibility.
- One-piece welded frame has no bolts to work loose — always stays tight.

There's a New Holland Mower to fit your needs: "47" semi-mounted, "45" fully mounted and "46" trail-type. See your New Holland dealer



New Holland "47" Semi-Mounted Mower cuts your crops with effortless speed. With a New Holland "404" Crusher or "401" Crimper, you mow and condition in one fast trip!

now; have him demonstrate the mower you need, right on your own farm! So easy to own, too, with his flexible finance plan!

FREE BOOKLET! Write New Holland Machine Co. (Canada) Limited, Cyrville, Ontario, Canada.

New Holland "46" Mower (Trail-Type), attaches to almost any tractor by dropping a pin into the drawbar.



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MARCH 1961

25

water a few hours before shipping will also help. If cattle are in transit more than 12 hours, provide for fill-back at market. It is also a good idea to sort heifers and steers.

Some of the things to avoid, says Kirkeide, are overfilling cattle before hauling, rushing and crowding them into cars, overcrowding or underloading. Don't delay shipment after the cattle are ready to move. Don't trail cattle over a long distance without feed and water, or overfill them at their destination. V

### Vaccinate and Be Safe!

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**CCS BACTERIN**  
*Clostridium Chauveli-Septic Bacterin*

*Gives You Complete  
BLACKLEG  
Protection!*

More stockmen vaccinate more calves with this pioneer Franklin brand than any other make.

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**DEPENDABLE IMMUNITY**

## LIVESTOCK

## SPF PIGS May Solve Disease Problem

*Pigs produced surgically are known to be healthy. Complete isolation keeps them that way*

**A** NEW kind of swine hospital is making its appearance in Canada. Out of its isolated and antiseptic interior is coming something new in the way of farm livestock—pigs known to be free of



*Dr. John Calverly (l.) can turn out 36 SPF pigs every week. Dr. Howard Neely (r.) of O.V.C. is interested.*

the infections, atrophic rhinitis and virus pneumonia.

SPF pigs they are called—specific pathogen-free. And there's a quiet hopefulness among swine men that they represent a solution at last to the disease problem that has bedeviled them.

Thousands of such pigs have been produced in the United States in recent months, and hundreds of SPF herds established. The pigs have demonstrated some spectacular advantages, too:

- they grow faster (in one college trial they were 46 lb. heavier than ordinary pigs by 5 months of age).
- they raise more pigs per litter.
- they require fewer drugs and fewer calls from the veterinarian.

If they do as well in Canada, hog men are in urgent need of them. Just how urgent became apparent during a recent attempt by the Ontario Department of Agriculture to develop a Certified Herd policy. Every herd offered for certification was found to be infected with virus pneumonia or atrophic rhinitis. Not a single clean herd was found. Yet



*[Guide photos]  
Pigs on one side are incubated for a week, then moved across to brooders.*

these diseases cause pigs to be poor doers and unthrifty.

SPF pigs get a peculiar start in life. They are removed surgically from the sow before birth, and raised in sterile conditions to break the disease link from sow to young. The pigs, free of diseases and such pests as mange, roundworms and lice, that would depress growth, make surprising growth.

**T**HREE laboratories are now producing SPF pigs in Canada. Dr. Jack Greenway has built one at Acme, Alta. Dr. John Calverly has opened a new laboratory at Stratford, Ont.; and Connaught Veterinary

Laboratories has built facilities near Toronto.

Dr. Calverly showed us how an SPF pig is produced.

The sow is taken to the abattoir before she is due to farrow. She is anesthetized and the uterus containing the pigs is removed surgically and passed through disinfectant into a sterile chamber. The operator then reaches through holes in the side of the chamber to free the pigs from the uterus. Meanwhile, the sow is slaughtered.

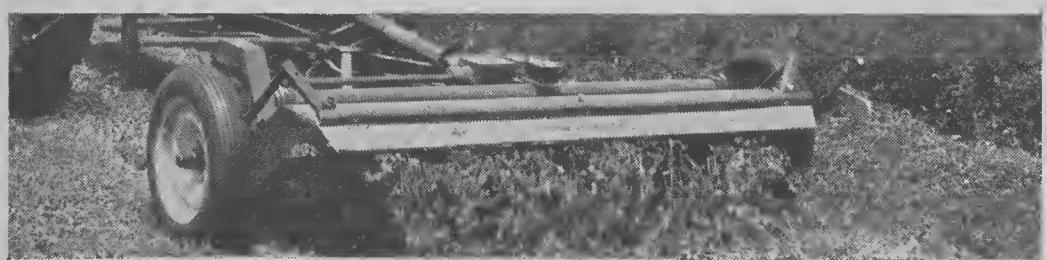
The pigs are carried to the laboratory in a sterile carrying case fitted with air filters. There, the pigs go into individual incubators for a week. Air coming into the building is carefully filtered, heated and directed through the building in such a way that once it is breathed by a pig, it goes directly outside. Since the pigs are free of diseases, and are in complete isolation, they don't require colostrum. They thrive on a pasteurized milk diet.

At the end of a week, the pigs are transferred from incubators to brooders, where the air is still carefully controlled. After three more weeks, they are ready to be placed on farms.

How do you get started into SPF pigs? Dr. Calverly will sell you such pigs, or you can take your sow to him and he will remove the pigs through hysterectomy, and raise them to 4 weeks of age. You get the value of the sow when she is slaughtered, and you pay \$50 a piece for the pigs. Once a few herds



*New Holland "404" Crusher maintains constant spring pressure to avoid overcrushing. Exclusive pickup height adjustment lowers throat opening closer to ground. Hooks up to a New Holland "47" Mower, so you can mow and crush in one operation.*



*New Holland "401" Crimper crimps stems with smooth meshing action. Leaves a light, fluffy, fast-drying swath. Hooks up to a New Holland "47" Mower.*

### Pick your way to save a haying day!

**Crimp it or crush it... only  
New Holland offers you a choice!**

Which do you prefer... crimping or crushing? Either way, you can save up to 50% in curing time with these New Holland Hay Conditioners.

Humid area or dry—it makes no difference. Hay conditioning will help you cure your hay faster, more evenly. And you'll get better hay too, richer in the proteins that mean bigger profits for you. That's because New Holland Hay Conditioners—"404" Crusher or "401" Crimper—save precious feed value, give you dependable performance when every moment counts!

See your New Holland dealer soon. Ask him to help you select and to demonstrate the conditioner that's right for your farm. Easy to own, too, thanks to his flexible finance plan!

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are established, swine men may be able to buy first generation pigs from the owners to start a herd. As long as the herds are kept isolated, succeeding generations should be as good as the first one.

ALTHOUGH these pigs are free of some specific disease organisms which would reduce their efficiency, they aren't completely disease-free. They are not hothouse pigs. Once they are 4 weeks old, they can adjust to normal soil bacteria and farm conditions.

However, they must be kept in complete isolation from ordinary pigs. For this reason, Dr. Calverly predicts that young farmers willing to adopt precise management conditions and work with their local veterinarians to maintain herd health, will have the best success with the pigs.

In starting up a herd, any farmer must thoroughly clean and disinfect his premises and keep them free of swine for at least 2 months, before bringing in the new pigs.

Several ways may be open to reduce the big initial cost of being without pigs while starting up an SPF herd. A hog man might locate clean premises off his farm, where he raises the new pigs while keeping his old herd producing a little longer. Or he might join with a neighbor or two. One of them could clean up and raise the new pigs. The other could market another lot of



Brooder is sealed, air is filtered, feed is passed through top opening.

hogs before cleaning up and making ready for the clean pigs.—D.R.B. V

### Half-Way in Brucellosis Control

BETWEEN the opening of the national brucellosis campaign in 1957 and the end of last year, more than 65,000 infected cattle were eliminated. Compensation paid to farmers for the loss of these cattle was very nearly \$1.5 million, reports Dr. Walter A. Moynihan of the Health of Animals Division.

The program to eradicate brucellosis in cattle herds across Canada is reaching the half-way mark. A total of 494 areas were accepted for testing up to November 30 last.

Work was completed in 232 of them, and 188 areas were certified brucellosis-free. Another 167 areas are under test, leaving 139 areas still to be tested. About 43 per cent, or 4.9 million cattle, out of Canada's total of between 11 and 12 million, were under Canada Department of Agriculture supervision. V

in terms of feed and labor, increased the overall cost of the animals by \$15. However, the extra premiums and returns for top grade carcasses from pigs fed a ration diluted with hay were \$22.50 more than for those on the standard finishing ration. V

### Picking a Calf For 4-H Calf Club

CHOOSING the right calf for 4-H work is not the easiest part of a club project. The Ontario Department of Agriculture has published some hints for 4-H'ers, as follows:

- The 4-H club work is a practical project. If you spend too much when you buy your calf, you might show a loss when you subtract the expenses from the selling price.
- Reasonable prices to pay are \$125 for a senior dairy calf, \$75 to \$90 for a junior dairy calf, \$100 for a senior beef calf, and \$75 for a junior beef calf.
- Try to buy a purebred, especially if you're buying a dairy calf. This enables you to become familiar with pedigrees and record keeping.
- Go to your club leader for help, as well as consulting your family, when picking out the calf. These men know the cattle in their own district, because most of them are cattle breeders.
- Don't worry about picking a future winner. The calf counts for only 400 marks out of a total of 1,000. Most marks are for good citizenship and the management. V

## Rakes “whistle-clean” anywhere!

New offset wheels, “floating” basket, prevent tooth breakage, too.

From New Holland—the advanced Model 56 Rolabar Rake! Its cleaner raking action puts more hay . . . more dollars . . . into the windrow. Saves nutrient-rich leaves and blossoms, to cut feed supplement costs. You get all these quality features . . .

#### QUALITY YOU CAN SEE

- NEW OFFSET WHEELS, “FLOATING” BASKET, give cleaner, smoother raking; protect teeth on uneven ground.
- “ROLABAR” ACTION exposes stems to the air for quicker drying.
- BOTH GROUND WHEELS DRIVE—the “56” continues to rake on either right or left turns.
- FAST: rakes full 8 ft. swath up to 8 mph.
- LESS HAY MOVEMENT saves protein-filled leaves and blossoms; rakes at full right angle.
- LIGHT-TO-TIGHT WINDROWS through easy crank adjustment.
- PATENTED SPRING-LOADED JACK makes hitching up quick and easy.

#### HIDDEN QUALITY, TOO!

- EXCLUSIVE 100-ACRE LUBRICATION saves time.



Model 56 Rolabar Rake gently lifts and rolls mowed hay into light, fluffy windrows for fast, even curing. Saves nutrient-filled leaves and blossoms.

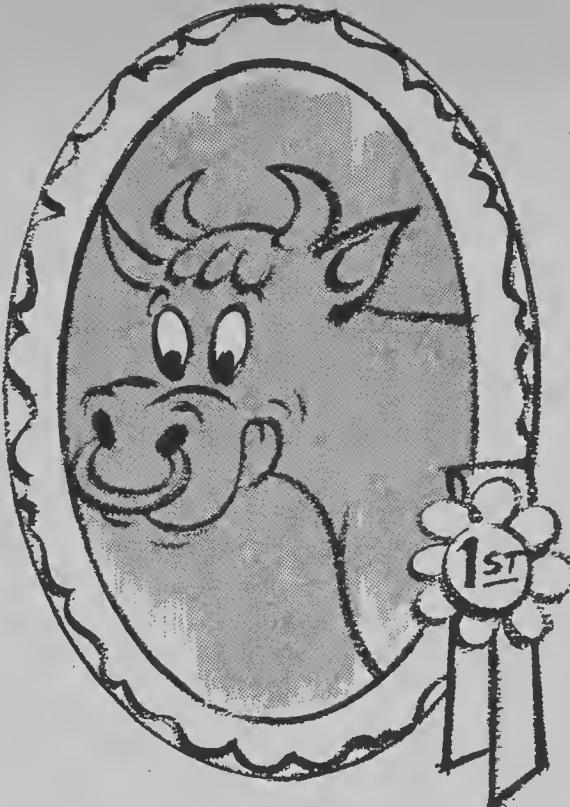
- SEALED TINE BAR AND REEL BEARINGS give lifetime service; need no lubrication.
- NO IDLERS, BELTS OR CHAIN LINKS to tighten or replace.
- REPLACING TINES IS EASY. Inexpensive tines may be replaced individually; no need to remove tine bar.

Ask your New Holland dealer to demonstrate the “56” Rolabar Rake on your own farm; check his flexible finance plan. See all the advantages of owning New Holland quality.

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ANY  
CHAMPION  
WORTH  
HIS  
SALT  
DESERVES  
A  
LICK  
OF  
WINDSOR!



**Permanently iodized**, Windsor's Cobalt-Iodized farm salt gives your livestock vital food in handy form. Buy it in 5-lb. licks, 50-lb. blocks and 100-lb. bags. From the manufacturer who works *from your point of view*.

## Mrs. Farmer: why do you Go Without?

Many a farmer's wife is "making do"—going without comforts and conveniences in the home—because her husband still sticks to costly haying and harvesting methods.

We're not exaggerating. The money spent on twine, extra help, and silo filling would buy one major household appliance **every year**, and leave money over!

Mrs. Farmer, why go without? Check up on the time-saving, labour-saving, money-saving McKee One-Man Shredder Harvester. Storing hay and straw, storing grass and corn silage with just one man and one tractor, the McKee is a great economizer!

Fill out and send in the coupon. We'll send you full information. Leave it where your husband is sure to see it! (He'll thank you, later.)

- ONE machine loads in the field, unloads at the barn.
- ONE tractor is all that's required.
- ONE man can fill his silo, single-handed.
- ONE man, alone, can harvest 20 tons of hay a day.
- ONE man can direct cut grass and haul to cows.
- ONE man can haul swathed grain from field.
- ONE man can pick up and store combined straw.



Please send me full information on

Corn Attachment  
 Automatic Unloader

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QUEBEC & MARITIMES

McKee Harvesters (Eastern) Limited  
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McKee Shredder Harvester  
 Time Payment Plan  
 Farm Improvement Loans

SASKATCHEWAN

Ronald MacCrostie, 1730 Alberta Ave.  
Saskatoon—Oliver 2-1414

MANITOBA

McKee Harvesting Systems

Elm Creek—Phone 99

**McKee Bros. Limited**

Elmira, Ontario

CGI

## Beef R.O.P. Shows Uniformity

THE national Record of Performance program for beef cattle in the past 4 years, has had 140 purebred herds on test, according to J. D. Baird of the Production and Marketing Branch. The number of owners and calves participating were: New Brunswick 4 and 28; Manitoba 14 and 146; Saskatchewan 51 and 907; Alberta 54 and 1,181; British Columbia 17 and 303; total 140 and 2,565.

The 2,565 calves included 735 Aberdeen-Angus, 1,659 Herefords, and 171 Shorthorns.

In the last test year, there were no valid breed differences between Aberdeen-Angus and Hereford calves tested. The number of Shorthorns was insufficient for reliable comparison. The male calves made an average gain of 1.97 lb. per day, and females 1.76 lb.

Despite different conditions in the provinces, all calves under test showed a remarkable similarity in pre-weaning performance. Gain rates declined after weaning, owing to management practices. The average daily gain for all male calves fed during the winter was 1.89 lb. per day, and for females 1.26 per day.

The average variation between the top and bottom one-third of calves within each herd remained between  $\frac{1}{2}$  lb. and  $\frac{1}{3}$  lb. a day. Bull calves gained about  $\frac{1}{2}$  lb. more per day than did heifer calves.

Gains made in the feeding period were uniform between provinces, except for British Columbia, where many calves were carried through winter on little more than maintenance rations.

A breed class average system within the ROP program is being considered by the National Advisory Committee. Also, a sub-committee has been set up to study further the application of progeny testing for A.I. sires. V

## Heifers Call Him When Ready

EVER heard of a "moo-microphone"? It seems that a dairy farmer at Carlisle, England, was having a lot of sleepless nights, trudging from his bed to his barn to keep an eye on calving heifers. He has a herd of 257 Holsteins and Ayrshires. The problem was laid before a radio engineering firm, who came up with a system that would enable the farmer to lie abed and wait for the heifers to call him when help was needed.

The system, a microphone in the barn connected to a loudspeaker at the bedside, has saved hours of labor and fruitless journeys. In 2 weeks it kept the farmer in touch with 4 nocturnal calvings. One night, it saved the barn from flooding, when he heard the sound of running water and found that a water-bowl had jammed. V

Speaking of his private line to the barn, the farmer claims that he can judge the calving progress by hearing the animals' breathing. He believes poultrymen would find it useful, too, by giving them warning of predators in the henhouse. V

## With Help From Manure



Guide photo  
Mechanized cleaning delivers manure directly from gutter to a spreader.

MANURE will rebuild eroded areas on light soils, and it will also help to prevent soil drifting, particularly if it is applied on exposed knolls.

An experiment was started in 1955 at Melita by the Brandon Experimental Farm, Man., using a 3-year rotation of fallow - wheat - wheat. Barnyard manure was applied in the summerfallow year at 15, 30 and 45 tons per acre. Average yields for the 3 years were 6, 12.3 and 12.5 bushels per acre respectively over unfertilized plots, which averaged 18.9 bushels per acre. The residual effect of manure on second-crop yields produced an average increase over a 2-year period of 8.8, 8.4 and 9.6 bushels per acre above the unfertilized yield of 15.6 bushels per acre.

A 22-year experiment with a similar rotation showed that combined yield increases of first and second crops from 10 tons per acre of manure applied in the fallow year were 10.5 bushels per acre. With 11-48-0 fertilizer at 40 lb. per acre on summerfallow, and 16-20-0 at 96 lb. per acre on second crop wheat, combined yield increases were 8.7 bushels per acre. V

## Salt Supply In the Pasture

A SINGLE salt block is usually not enough to supply the needs of your cattle on pasture. Dr. Bruce Stone, dairy cattle specialist at the Ontario Agricultural College, suggests you use a covered box set in the fence row where it will serve two fields. Divide the box down the center so you can feed loose salt in one half and mineral in the other. V

## What's Best For Ranch Horses

As with other kinds of livestock, the care of a ranch horse is summed up as breeding, feeding and management, says Donna Lawrence of the Swift Current Experimental Farm, Sask. Breeding is the business of the professionals, so that leaves feeding and management, which must go together if either is to be successful.

It is generally considered that water should be given first and feed shortly after. The horse should drink all he wants, unless he is too hot. Permit an overheated horse to drink a little at a time, but often, until he has cooled off. Plenty of fresh, clean water is essential at all times.

The horse has a rather delicate digestive system compared to animals like the cow, and is susceptible to such disorders as colic. Too often, horses are overfed and under-exercised. Adjust the ration to the size and age of the horse, and the severity of the work. Hardworking horses should receive 1 to 1½ lb. of hay and 1 lb. of oats for each 100 lb. of live weight. Those in fat condition will not require so much.

A little grain fed regularly is much more satisfactory than feeding only on work days. Don't expect a horse to be in condition for a hard day of "cow punching" if he has been on green grass for several weeks. It is false economy to deprive the working horse of his grain ration. The bulk of the hay is best fed at night.

During any change-over, new feed should be blended with the old, and the percentage of new gradually increased until it replaces the old. Horses brought off pasture should be put on full feed gradually. Even confinement in the fall should be as gradual as possible, or colds may develop through the sudden environmental change.

A ration should contain enough bulk for safe digestion, a high degree of palatability, and a variety of feeds. Unless several feeds are included, there may not be proper amounts or proportions of the various nutrients.

Timothy has always had a high rating as horse feed because of its freedom from mold and dust. But mixed hay has a higher feeding value. Saskatchewan pastures often have insufficient minerals, so cobalt iodized salt, bone meal and limestone should always be available. Bran and linseed have feeding value for horses, especially for those completely confined. V

## Meat Consumption

WORLD meat consumption continued its rise in 1959 with an increase per capita in 21 countries. Meat production, however, has increased at a faster rate than the human population for several years, according to the Meat Packers Council of Canada. Production rose in 1959 and was 23 per cent above the 1951-55 average. World meat consumption, up in 1960, is expected to increase again in 1961. V



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# Farmers see for themselves how borderline spark plugs waste power on the sly!

Dynamometer test proves to them —you can't trust your ear to warn you when borderline spark plugs are wasting valuable pulling power

*Borderline* spark plugs fool you because they cause only slight misfiring or no misfiring at all. That's why there was a big surprise in store for the farmers who came to a dynamometer test at St. Hyacinthe, P.Q., last year.

As far as these men were concerned their tractors—driven straight from the farm—were running well and didn't need a plug change. Yet the dynamometer test showed that most of the tractors were running on *borderline* plugs that caused them to lose as much as 7 horsepower!

Unless you change your spark plugs regularly, it's more than likely that *borderline* plugs are wasting your tractor's power and gas right now. Don't trust your ear to warn you. Keep your engine at full power and economy by installing new Champions every 250 hours or twice a year, if no records are kept.



At the Ford Tractor dealership of St. Pierre & Aubin in St. Hyacinthe, P.Q., farmers watch the results as a tractor's horsepower is tested with a p.t.o. dynamometer. First the tractors were tested just as they came off the farm and

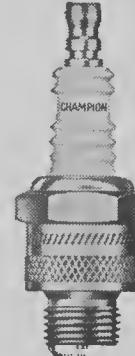
a horsepower reading was taken. Then new Champion spark plugs were installed and another reading was taken. In case after case, a gain in horsepower was shown—proof that *borderline* plugs waste power on the sly.



Jean-Paul Lagacé (centre) of St. Hyacinthe was surprised by the results of the dynamometer test on his tractor. "I'd been running on the same plugs for about a year and figured they were still good for many more hours of hard work. But the dynamometer showed 5 more horsepower after new Champions were installed. It certainly proves that it pays to change plugs regularly." Irene Boulay of St. Thomas d'Aquin (right) was another farmer who was losing power through *borderline* spark plugs.



Paul Vermeersch of Douville watches the dial of the dynamometer while his tractor is tested. As he said afterwards, "I didn't expect the dynamometer to show much if any difference after changing plugs. I run my tractor hard, but the plugs had only been in six months and I noticed no signs of misfiring. Then with a new set of Champions the dynamometer showed I'm getting 7 more horsepower! That's a mighty important increase with spring plowing coming up and you can be sure I won't let *borderline* spark plugs catch me again."



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SPARK PLUGS

## All-Barley Ration For Steers Needs Care

SINCE barley has become a standard concentrate in many feeding operations, it should be remembered that barley grown in Western Canada has less fiber and more protein than barley grown in parts of the United States, where earlier results were obtained. These results indicated that cattle could be fed to gain at a normal rate and use feed more efficiently when given an all-concentrate ration, as compared with concentrates and roughage.

R. Hironaka of the Lethbridge Research Station, Alta., points out that cattle should be got on feed with considerable care, if an all-concentrate ration is fed. Steers should be started in the usual manner with small amounts of grain and liberal amounts of hay. Grain should be increased gradually, while hay is reduced until the steers are on barley only. The initial period used by workers who developed this system of feeding was generally 2 weeks. A longer period was required in some cases.

In a feeding trial at Lethbridge, steers received a ration composed entirely of crimped barley weighing 51 lb. per bushel. They also had vitamin A-mineral mix free choice. Wood shavings were used for bedding to prevent the animals from receiving any nutrients from this source. The steers weighed approximately 750 lb. initially and were of good quality. Steers were fed individually according to body weight. They were marketed when they reached 1,050 lb.

Although some steers did not eat the total amount of barley offered them at all times, most of them consumed their daily ration. Some bloated several times. But under the conditions of the experiment it was impossible to attribute these problems to any specific causes other than individual differences.

The steers' consumption of the vitamin-mineral mix provided a surprise. Throughout the entire feeding period they consumed over 1 lb. of the mix per head per day. In addition, steers chewed on boards and even ate some of the fresh wood.

shavings. These symptoms indicated a deficiency in the ration.

During a feeding period of 4 to 6 months, the steers gained an average of 2 to 2.7 lb. per day, and might have gained faster if the barley had not been limited. Feed-to-gain ratios of about 6½-to-1 were obtained. The results compared favorably with those obtained on a ration of grain and hay, when average daily gains of 2 to 2.5 lb. per day, and a feed-to-gain ratio of 10-to-1, are considered satisfactory for this size of animal. Carcasses from the steers graded Choice.

It can be concluded from this experiment that an all-barley ration, or one with some small modifications, may be practicable for producing a highly desirable product. V

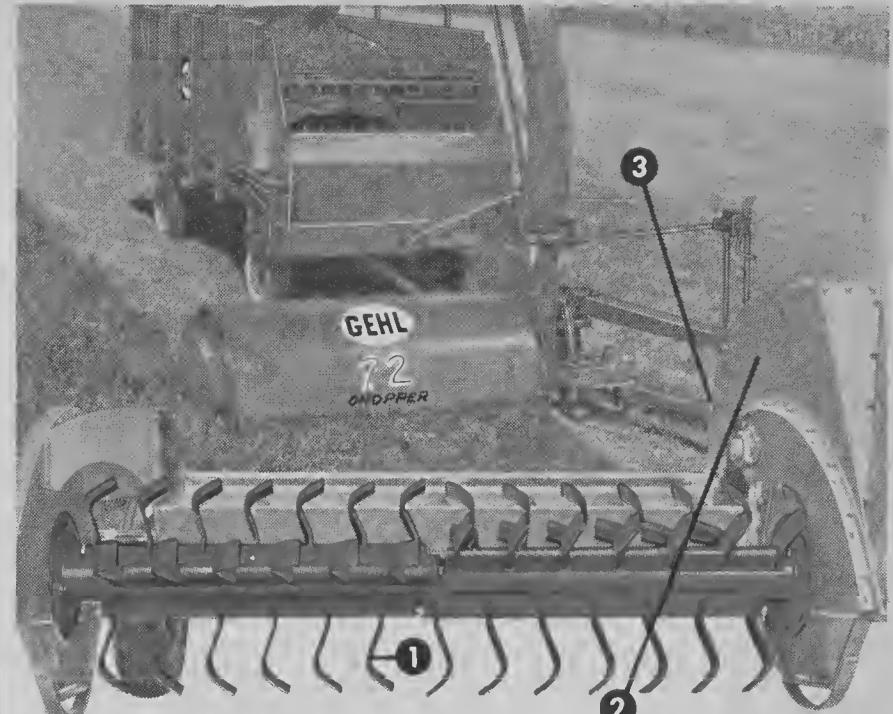
### Yearling Ewes In Range Experiment

CRESTED wheatgrass and Russian wild rye pastures, grazed at ½ acre per head per month, produced greater gains in yearling ewes than native pastures grazed at ½ acre per head per month. This was found in a range research program at the Manyberries Experimental Farm, Alta.

S. Smoliak, in charge of the test, reports that in 1959 range grazed continuously for 7 months resulted in body weight gain per acre of only 7.1 lb. On continuous crested wheatgrass, the gain was 29 lb. per acre, and the Russian wild rye produced gains of 35.6 lb. In a rotation of crested wheat for 10 weeks, native range for 6 weeks, and Russian wild rye for 14 weeks, the gain was 17.8 lb. per acre. Free choice of the 3 pastures, fenced as one field, showed gains of 21.6 lb. per acre.

Observation of the grazing habits of ewes in 1959 showed that they preferred crested wheat grass for 8 weeks in spring, Russian wild rye for 11 weeks, and back to crested wheat for the last 4 weeks when snow cover was deep. Over 2 years, the ewes grazed crested wheat 40 per cent, native range 13 per cent, and Russian wild rye 47 per cent of the grazing season. V

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### Fast Killer Among Swine

SECOND only to pneumonia as a swine killer in Manitoba, erysipelas can be controlled effectively at a very low cost, according to the Manitoba Department of Agriculture.

Don't wait until the disease strikes before taking action. Inoculate the gilt or sow with modified live vaccine shortly after breeding, or with commercial bacterin a few weeks before farrowing. Inoculation of the sow should be followed by inoculation of the litter about 2 months after birth. The sow's inoculation with live vaccine or bacterin gives newborn pigs immunity for up to 2 months. Antibodies are produced by the mother after inoculation and these are transferred to the young pigs through the colostrum (first milk).

To prevent erysipelas, one injection of the modified vaccine is required at breeding time, with one more injection of each of the litter at 2 months. If bacterin is used, two injections must be given to the sow at 7 to 10 days apart, about 4 weeks before farrowing, followed by two injections of each young pig at 2 months of age. There's a number of erysipelas bacterins, so follow the manufacturer's instructions on the label for timing and dosage.

When a pig is infected with acute erysipelas, waste no time in treating it. The disease strikes fast, spreads quickly, and an accurate diagnosis is essential. If in doubt, consult a veterinarian at once. Anti-swine erysipelas serum, penicillin, or both, are recommended.

Erysipelas can strike without warning and kill the pig without showing any previous symptoms. But, usually, affected animals have a high fever, breathe laboriously, have an erratic appetite, diarrhea or constipation, increased thirst, and may vomit.

The disease affects birds, other animals and man.

### What It Takes To Finish Steers

BRUCE COUNTY, ONT., has two feeder clubs which produced some interesting results with 95 steers last year. The project started with steer calves weighing 400 to 600 lb. These were fed a winter growing ration and were finished off on grass, with necessary amounts of grain and concentrate to produce a finished carcass in about 10 months.

Here are some of the observations made:

- Steers should be kept as close as possible to a gain of 1 lb. per day during the winter. If this rate is exceeded, they will not gain accordingly on grass.

- Silage must still be considered as a replacement for hay, not as a better feed. Generally, silage will not cheapen gains, but it will mean more pounds of beef per acre be-

cause of the high volume of production from corn silage.

- Given comparable feeding methods, and the use of equally good animals, management becomes the important factor in the profit obtained. Examples of this are lice control, dry bedding, ventilation, pasture management, etc.

- A more accurate method of determining quality of winter roughage and amount of grain needed in winter, along with more intensive pasture management, should help to increase profits of most feeder operations.

### Advantage in Flushing Ewes

EWES which have grain for a few weeks before breeding may have a better chance of producing twins and triplets. Sheep specialists at the University of Wisconsin report that there were more multiple ovulations in mature ewes fed grain for various periods before they were bred. Tests showed 70 to 75 per cent of flushed Hampshire ewes had multiple ovulations, compared with about 60 per cent of ewes continuing on straight rations up to the breeding season.

A similar picture appeared with Columbia ewes, although their flushed ewes gave 50 to 64 per cent multiple ovulations compared with 27 per cent of ewes that were fed hay.

In the Wisconsin tests, the ration was 2 lb. grain per ewe daily, in addition to all the grass-alfalfa hay they wanted. Flushing periods ranged from 18 days to 2 months. Ovulation rates and numbers of living fetuses were determined when the ewes were slaughtered 140 days after breeding.

Grain fed after breeding had mixed effects. About 84 per cent of the embryos were surviving in the hay-fed group 140 days after breeding, and only about 70 per cent in the group of ewes fed 2 lb. of grain daily in addition to hay. However, the grain-fed ewes were carrying lambs which averaged about 1½ lb. heavier 140 days after breeding.

The conclusion is that it is probably desirable to grain-feed mature ewes before breeding to get the highest percentage of multiple ovulations. But embryo survival is not helped by continuing grain feeding through gestation.





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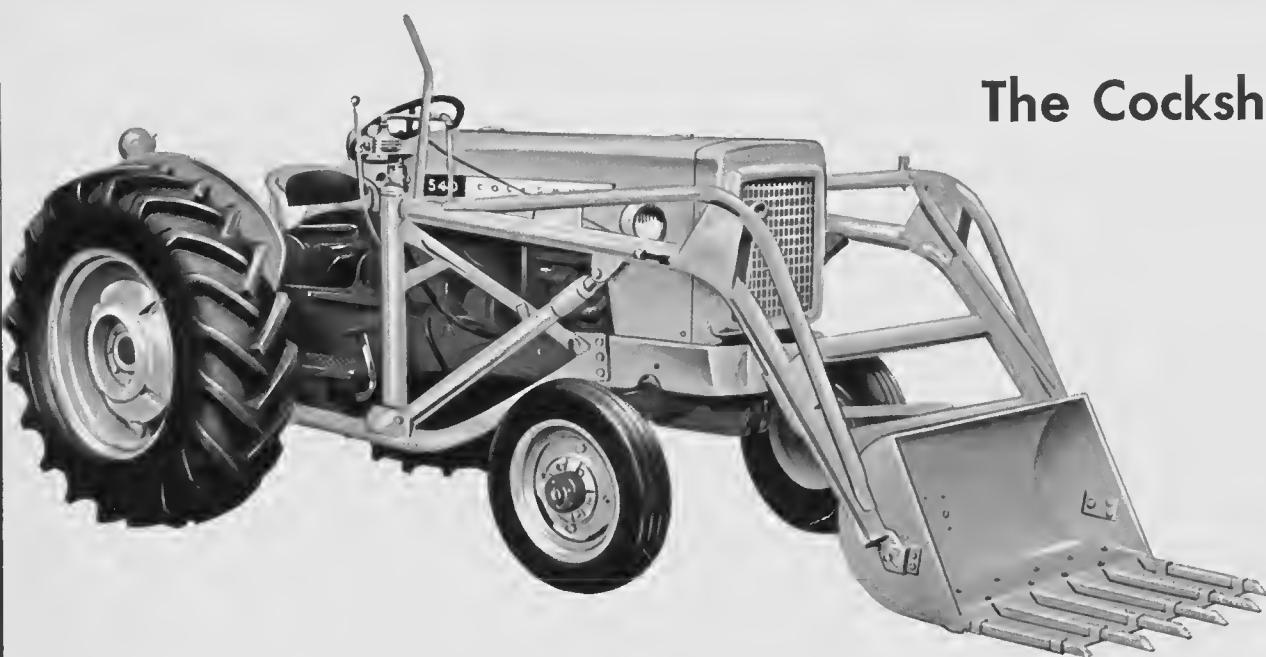
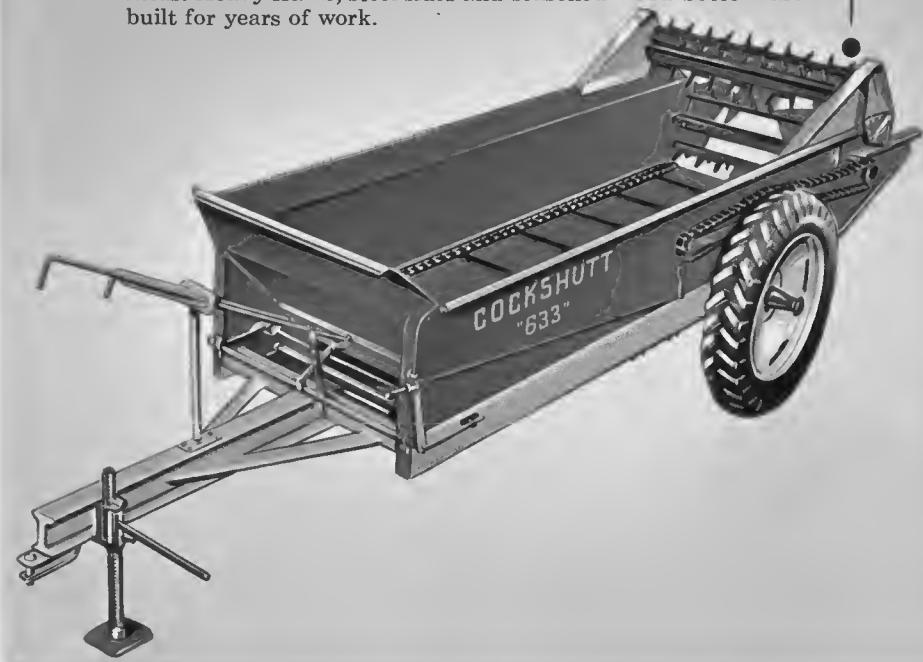
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## Saving Four Minutes Per Cow

EVERYONE agrees that it's desirable for a dairyman to cut down his chore time. But how should it be done? E. F. Maas of the Saanichton Experimental Farm, B.C., offers the example of a farmer at Courtenay.

This man, says Mr. Maas, has reduced his chore time by half through switching over to a milking parlor and bunker silos. He used to keep his cows in a loafing barn, and tied them twice a day in the old stanchion barn for milking and feeding. Bags of grain and the silage from an upright silo had to be manhandled into the mangers.

With his new, double-six, herringbone milking parlor, bunker silos and mangers, one man can feed and milk in the same time that it used to take two men to do the job. Chore time was 241 minutes for a 30-cow herd under the old system, but is only 139 minutes for 38 cows with the new system. This is an average saving of 4 minutes per cow.

The milking parlor is the greatest time saver on the Courtenay farm, cutting 30 minutes from the daily milking time, while the pipeline saves another 42 minutes. Installation of a bulk tank is expected to shave another 20 minutes from chore time.

The grain is fed automatically into the milking parlor. Opening a gate to the bunker silos takes only a minute compared with 47 minutes for feeding grain and silage under the old system.

It still takes 22 minutes to wash the milking parlor, but this is offset by a saving of 6 minutes in washing the milking equipment, and the elimination of several hours normally required for cleaning the old barn. ✓

## Ideas in Scrapbook



PERCY and Jean Waddy, who operate the huge Waddy-Colpitts dairy farm, with its 800 acres and 175 dairy cows, get farming ideas from farm papers and keep a scrapbook of clippings of the best ideas. Here they look at a Country Guide clipping about birdfoot trefoil, and decide to try this new clover on their own farm. ✓

## Airing Gave Better Conception Rate

DAIRY cows that were turned out daily in winter had a conception rate of 69.5 per cent, those in loose housing achieved 68.3 per cent, and those that were not allowed out had a conception rate of 64.1 per cent. These results from a study made at Cornell University showed that there was almost a 6 per cent increase in conception rate among dairy cows that were turned outside.

The main reason given for improved conception was the difficulty of detecting heat periods when cows are kept indoors. And it is often hard to know exactly when the heat period has started. The result is that some cows are inseminated too early and others too late. Research has shown that the highest settling rate on a first-service basis occurs when cows are inseminated after at least 6 hours in "standing heat," and not more than 4 hours after the end of "standing heat."

According to R. P. Dixon, Alberta's supervisor of dairy cattle improvement, turning cows out for as little as 10 minutes each day is time well spent. ✓

## Milk Acts As Lubricant

MILKERS should not be left on a cow too long. Dr. G. R. Doidge, regional vet. for southwestern Ontario, says most cows milk out approximately 72 per cent of their milk in the first 2 minutes of milking. During the massaging action of the teat cup, the milk acts as a lubricant, preventing the delicate membranes from rubbing against one another and becoming inflamed when the milk is drawn out.

If the cow is milked out, and the teat cups are still on her, the lubrication has gone. The membranes will irritate each other. Any harmful bacteria present may enter the tiny wounds and set up infection. Mastitis could occur.

Dr. G. R. Doidge points out that most cows, if trained from their freshening, will milk out in 3 to 4 minutes. ✓

## Liquid Diets Contain Skim Milk

NEW liquid dietary foods, most of which are built around skim milk or skim milk solids, could mean extra milk sales. More than 40 of these new preparations are being sold in the United States, and some are gaining acceptance in Canada.

The Canada Department of Agriculture has reported that the dietary foods should provide a wider market for solids-not-fat and non-fat milk. Some U.S. producers claim that dietary drinks compete against fluid milk sales, and they demand that milk products going into dietary drinks should be classified as whole milk.

The Department of Agriculture statement says that people interested in losing weight do not usually drink whole milk. It is more than

# Gets bacteria counts less than 6,000 with Gillett's Lye!

Bill Hamilton of Carrickfergus, Ontario keeps a herd of 70 purebred Holsteins, and sells to the fluid milk market. Naturally, low bacteria counts are of prime concern to Mr. Hamilton. Using a cleanser and a solution of Gillett's Lye, here is how he is achieving remarkably low bacteria counts, averaging between 3,000 and 6,000.



**Preparing Solution.** Mr. Hamilton prepares a solution of Gillett's Lye by dissolving two level tablespoons in a gallon of water. He uses this solution to clean and disinfect his milk pipeline. Lye causes no troublesome foam, and bacteria can't escape.



**Rubber Inflations Stored In Solution** until next milking. Lye solution kills bacteria on the surface and in the pores of rubber. It extracts fat in the pores, thus helps inflations keep shape and tension, resulting in longer life.



FOR FURTHER INFORMATION on the Lye Method of caring for milking machines and rubberware, write to Standard Brands Limited, 550 Sherbrooke Street West, Montreal.

IN REGULAR SIZE AND MONEY-SAVING 5 LB. CANS.

## GENERAL MANAGER FOR DAIRY Northern Interior, B.C.

This is an excellent opportunity for a man who can take complete responsibility for the operation of a substantial dairy.

ESSENTIAL: A fully qualified and experienced man who can work with shippers, supervise plant foreman, and promote sales. He must have a good business sense and be able to recommend and carry out policies, as circumstances require, in order to ensure profitable operations.

This is a well-equipped and financially well-located dairy in a growing area. A premium salary is available for the right man with opportunity for additional remuneration based on results.

Send complete confidential application indicating why you wish to be considered for this position to:

MANAGEMENT SERVICES LTD.  
1158 Melville St., Vancouver 5, B.C.

## DAIRYING

likely that consumers of the liquid diets represent new business for the milk industry, and not people switching from whole milk diets.

The view is held that because dry and liquid skim milk are in surplus, any process which promises to absorb more of it should be given ample opportunity to establish itself among Canadians. v

### Records Show Where Profit Is

A COW'S production must exceed a 200 lb. of butterfat to realize a profit, says R. P. Dixon, Alberta's supervisor of dairy cattle improvement. Accurate milk and butterfat records are needed to discover which are the good cows in the herd, and to weed out the poor ones. All pure-bred breeders have the Record of Performance Service at their disposal for this purpose, and there are provincial cow tests for dairymen milking grade cattle.

The important thing is to keep records of individual performance. No two animals react in exactly the same way to the care and feed they receive; while one gives a high yield, another yields far less under the same conditions. v

### Other Countries Use Canada's Test

A FASTER method for testing Cheddar cheese, pioneered by the Canada Department of Agriculture several years ago, has been adapted for use in Australia, New Zealand and Finland. This Canadian system has cut the time of testing for extraneous matter from 25 minutes per sample to 1 1/4 man-minutes.

The testing routine involves taking a sample of cheese from each vat at the time of grading, and sending the sample to the department's laboratory at Ottawa. Samples are referred to as having Disc 1, 2, 3, or 4. The first two discs qualify the cheese for Canada First Grade, Disc 3 is Canada Second Grade, and Disc 4 is Canada Third Grade, or below. v



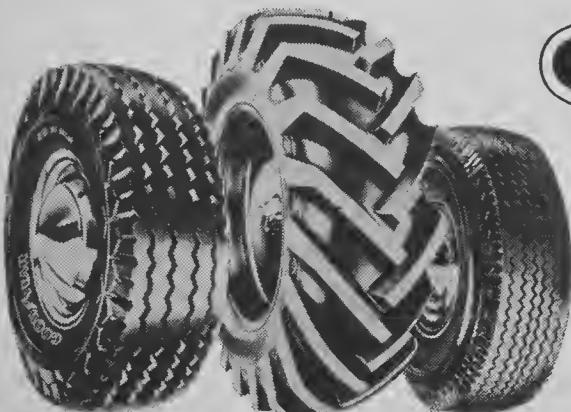
## Coffee break for the board of directors

**A one man board.** This one man makes *all* the decisions. This man is a Canadian farmer.

Long gone are the days when a farmer was simply a man wise to the ways of the land. And though today's farmer must have all the basic farming skills, he is first and foremost a businessman.

Many farmers must sometimes wonder what type of business they are operating. The break of harness is replaced by the throb of diesels. The stable is now a maintenance shop... home only to a mass of machinery. Business it is, and big business. In Canada, farm working capital amounts to a staggering \$10,000,000,000. \$2,000,000,000 of which is invested in machinery.

For trucks... tractors... cars...



There is a difference  
in tires



"You know the grain truck that I took to town that was getting old anyway."

# WORKSHOP

## Stock Rack

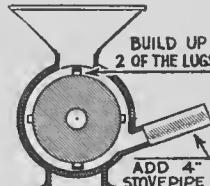
Having trouble with lambs jumping over the side of our truck, I built this very simple stock rack, which is also useful when we're hauling live turkeys or cattle. The rack is made of light  $\frac{1}{2}$ " pipe welded together with  $\frac{3}{8}$ " rods running the length of the truck box. This gives a pig wire effect. The rack is held onto the truck by slots made of  $\frac{3}{4}$ " pipe attached to the sides of the box, as in the illustration. Two men can lift the rack on or off very easily.—P.H., Alta.

## Sandpaper Cutter

I can cut sandpaper easily and quickly since I screwed an old hacksaw blade to the end of my work-bench. It's better than shears.—R.M., Mich.

## Blowing the Chop

To make my crusher blow chop to the far end of the bin, I took the plate off and had two of the lugs built up  $\frac{1}{4}$ " on top and  $\frac{1}{2}$ " on the side. The size will depend on how much clearance there is inside the crusher. Finally I added a 4" stovepipe to direct the chop. Since doing this I have ground up to 150 bushels of chop without having to shovel any of it away from the crusher.—H.P., Man.



clude two discs, steel rod, some pipe, a V-belt, and a forked lever. One disc has a short piece of steel pipe welded to its center through the convex face; the other disc has a length of steel rod or pipe welded right through the disc, and small enough to run inside the pipe on the other disc. The pipe on the first disc has to run in boxings or bearings to revolve freely and also to hold it in place on the machine. The belt should be free to rise or fall in co-ordination with the lever. The principle is that the higher the belt rides, the faster the discs will run. Note the spring on the shaft to take up the grab when the clutch is engaged.—H.A.C., Man.

## Crack Detector

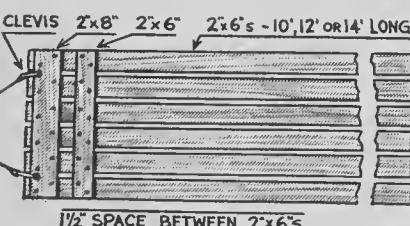
If you suspect a crack in steel shafting on appliance or vehicle

## Better Bale Bunching

ON this page, a few months ago, a British Columbia reader explained how he made small stacks of bales, using a stone boat, rope and light crowbar. This provoked a number of ideas from other readers, which boil down to the three methods given below.

### Wooden Platform

All you need is a half-dozen 2" x 6" boards, which can be from 10' to 14' long. These are spaced  $1\frac{1}{2}$ " apart, and are joined at the forward end *only* by a 2" x 6", and also a 2" x 8" which takes the towing gear. The hitch consists of 2 clevises on the 2" x 8". To unload



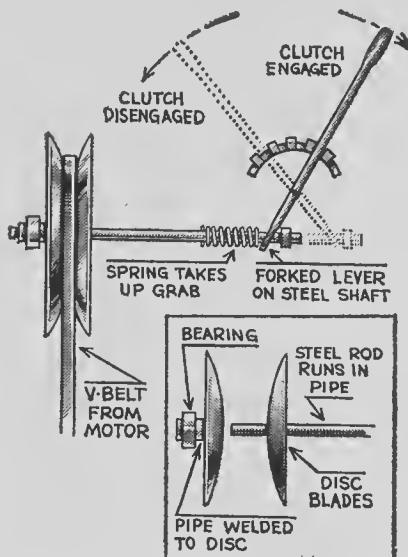
the bales, simply drive a bar into the ground between the 2 center 2" x 6", and the forward movement of the tractor pushes the bales off. You never have to stop and fool around with ropes, etc. For hauling

## Disc Clutch

This type of clutch was devised for a power toboggan, but it would be ideal for the pickup on a combine. It's often necessary to stop the pickup for stones, roots, etc. As you can see in the sketch, the materials in-

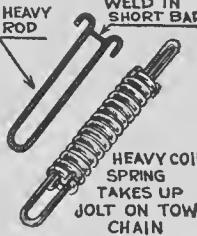
axles, wash the piece with solvent, dry it well and hang it vertically on a wire. Tap the shaft lightly with a hammer, and solvent, oil or other lubricant will be expelled around the crack by high-frequency vibration, even if the crack is invisible to the naked eye.—H.J.M., Fla.

✓

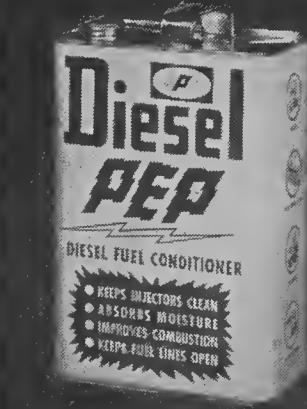


## Better Towing

When I'm giving a tow, I use a coil spring from a car to absorb the shock of starting, sudden jerks, or backlash. It works much better than the old tire. This can be made up in several ways, so long as the pull is from opposite ends of the spring. A good method is to use two heavy rods, bent like U-bolts, and hooked on the ends to grip the ends of the spring. Weld in a short bar to hold the ends apart after they are in place, or use heavy end plates and rods.—V.C., Ont.



# DIESEL PEP



Diesel Pep keeps injectors, screens, filters and fuel pumps clean—improves combustion, disperses water, keeps fuel lines open.

Diesel Pep prevents rust and acid formation, removes gum and varnish, eliminates wax and sludge—reduces engine wear, minimizes smoking. Get more pep and power... more cetane value... get DIESEL PEP!

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## Belt Hinges

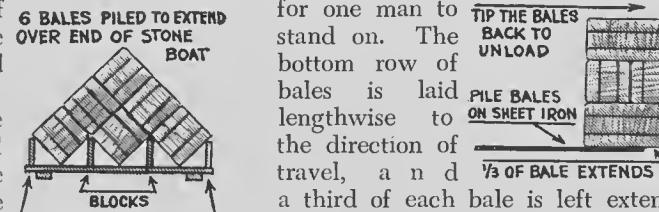
If you need a simple gate to keep a calf or other small animals in, here's the way. Take two pieces of an old belt, nail them onto a board that fits the gateway. Leave sufficient of the belts projecting to nail them to the gatepost. This gate will swing only one way.—P.D.E., Alta.



up 90 acres of hay last year and most of it sat out over a month without loss. The measurements of the rails will depend on the size of bales you are making, and the stone boat should be long enough to accommodate a few extra bales so that a stock can be carried far enough to line most of them up across the field. This means a quicker pick-up when drawing in.—H.G., Ont.

## Iron Platform

We use a fast and simple method for stacking bales. It consists of a flat sheet of iron that is large enough for one man to stand on. The bottom row of bales is laid lengthwise to the direction of travel, and



a third of each bale is left extending over the iron sheet. Of course, the iron sheet is drawn behind the baler. The bales will not be pulled off if only a third or less is left projecting. The next row is laid crossways, the next lengthwise, and so on. When the bales have been piled high enough, the operator pushes the top of the stack back and the ground pulls the bales off. There are no stops, extra men, ropes, or stakes.—L.W. Man.

## DIG HOLES SITTING DOWN!

### DANUSER DIGGER



#### NOW DOES DOUBLE DUTY

Digger converts quickly to CRANE BOOM!

Digs deeper holes—deep as 6'2" with extensions—some model features. Auger sizes 4" to 24". Convertible—pull ONE pin and add HOOK and becomes CRANE BOOM—hundreds of uses. Detailed information on request, also free booklet "Guide for Better Fencing".

Stocked throughout Canada for immediate delivery.

DANUSER MACHINE COMPANY

519 East 3rd Street, Fulton, Missouri

## LONG-SUFFERER FROM ARTHRITIS FINDS LASTING RELIEF!

"Whenever I get an attack of arthritis I've always found that DOLCIN gives me complete and lasting relief from pain," says George Appleton of Toronto.

If you've suffered from crippling, painful attacks of arthritis, as Mr. Appleton has, begin today to follow his advice! DOLCIN tablets have helped thousands of Canadians to quick, lasting relief from arthritis, rheumatism, sciatica, lumbago, bursitis, and muscular pains. Get DOLCIN tablets today from your druggist.

60-4



## Field Crop Recommendations for 1961

**S**eed time is approaching again. So here is a summary of the field crop varieties recommended for each province in 1961. They represent the best information available after careful testing and observation, and are published under the authority of the provincial departments of agriculture. A summary such as this cannot allow for every

problem on each individual farm, such as plant diseases, insects and the weather. These special problems should be referred to agricultural representatives, district agriculturists, the universities, or the experimental farms.

The maps were prepared by the provincial departments of agriculture.

### NEWFOUNDLAND

**Oats.** Extra early: Alaska, Cartier. Early: Ajax, Fundy. Midseason: Abegweit, Erban, Scotian. Fodder Oats as pasture supplement: Roxton.

**Barley.** Early: Olli. Midseason: Charlottetown 80.

**Field Peas.** Chancellor, Valley.

**Field Beans.** Early: Keneearly Yellow Eye, Soldier. Midseason: Lapin.

**Buckwheat.** Tokyo.

**Timothy.** Climax, Medon.

**Orchard Grass.** Hercules (favored

locations only).

**Alfalfa.** DuPuits, Grimm, Narragansett, Rhizoma, Vernal.

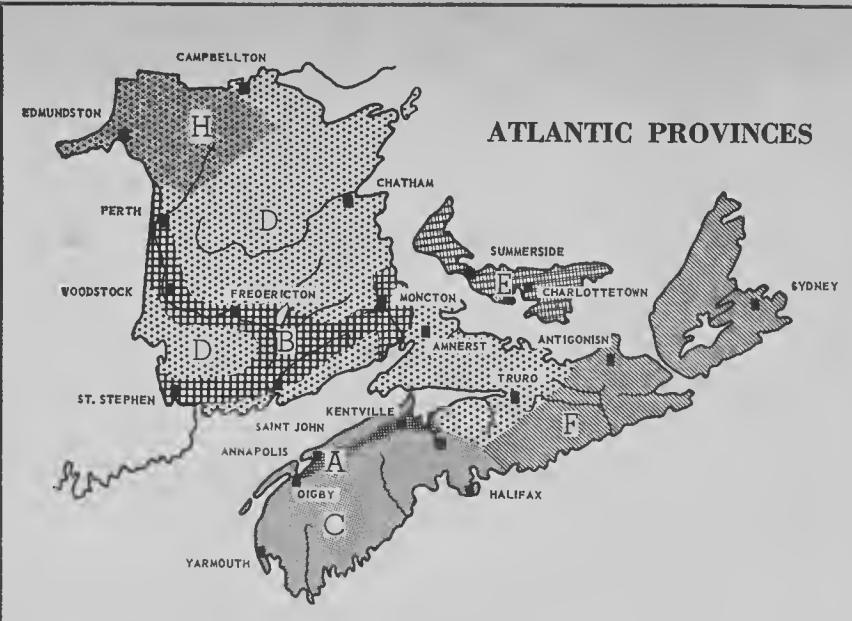
**Red Clover.** Altaswede, LaSalle, Thomas.

**Birdsfoot Trefoil.** Empire, Viking.

**Silage Corn.** Warwick 150, Wisconsin (Canada) 240, Warwick 210, DeKalb 65, Algonquin—in order of maturity (for emergency when grass is not sufficient).

**Swedes.** Acadia, Ditmars, Laurentian, Wilhelmsburger.

**Mangels.** Frontenac. ✓



### NEW BRUNSWICK

**Oats.** Early: Ajax, Clintland, Fundy, Simcoe (all zones). Midseason: Abegweit, Garry, Erban, Scotian (B and D). Fodder Oats as pasture supplement: Roxton.

**Barley.** Charlottetown 80, Fort, Parkland (all zones).

**Spring Wheat.** Acadia, Selkirk (all zones).

**Winter Rye.** Crown, Tetra Petkus (zones B and D).

**Field Peas.** Chancellor, Valley (all zones).

**Field Beans.** Early: Keneearly Yellow Eye, Soldier (all zones, but in zone H not for commercial production). Midseason: Lapin (zones B and D).

**Buckwheat.** Tokyo (all zones).

**Timothy.** Climax, Medon (all zones).

**Orchard Grass.** Hercules (zone B and favored locations).

**Brome.** Fischer, Achenbach (zone B).

**Alfalfa.** DuPuits, Grimm, Narragansett, Rhizoma, Vernal (all zones).

**Red Clover.** Altaswede, LaSalle, Thomas (all zones).

**Birdsfoot Trefoil.** Empire, Viking (all zones).

**Silage Corn.** Warwick 150, Wisconsin (Canada) 240, Warwick 210, DeKalb 65, Algonquin—in order of maturity (zone B, emergency use elsewhere).

**Swedes.** Acadia, Ditmars, Laurentian, Wilhelmsburger (all zones).

**Mangels.** Frontenac (all zones). ✓

### NOVA SCOTIA

**Oats.** Fundy (early), Scotian (midseason), Abegweit (later).

**Barley.** Charlottetown 80 and Herta (two-rowed, rough-awned), Parkland (six-rowed, smooth-awned).

**Spring Wheat.** Acadia.

**Winter Wheat.** Genesee (western areas only); Rideau.

(Please turn to page 42)



## NEW LIQUID MERGAMMA or MERGAMMA — either one kills wireworms and controls seed-borne diseases in one effective operation

Take your choice — MERGAMMA or NEW LIQUID MERGAMMA — you're the winner either way! Both Chipman dual purpose seed dressings kill wireworms and control seed-borne diseases . . . increase your crop yields 5 to 10 bushels per acre. Grades improve too!

NEW LIQUID MERGAMMA gives you the same reliable qualities that have made MERGAMMA famous during its 9 years of proven use across the prairies. Using the handy Chipman "treat-o-meter" (one comes free with each bottle) NEW LIQUID MERGAMMA can be applied to your seed as it passes through a grain auger.

No fuss, no trouble. Yet this one simple application deals a death blow to wireworms and seed-borne diseases.

- **Positive Savings** — These dual purpose seed dressings save you time and effort in treating grain.
- **Long Lasting effects** — Destructive, costly wireworms are controlled for at least three years!

See Your Local Dealer  
This Week

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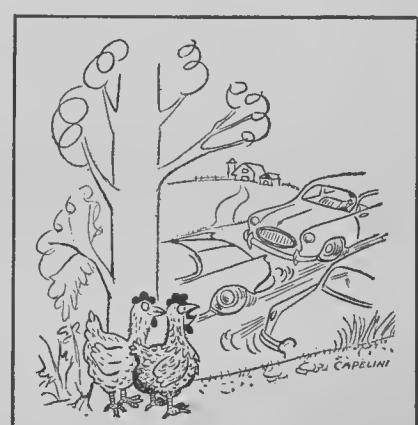
MONTREAL

HAMILTON

WINNIPEG

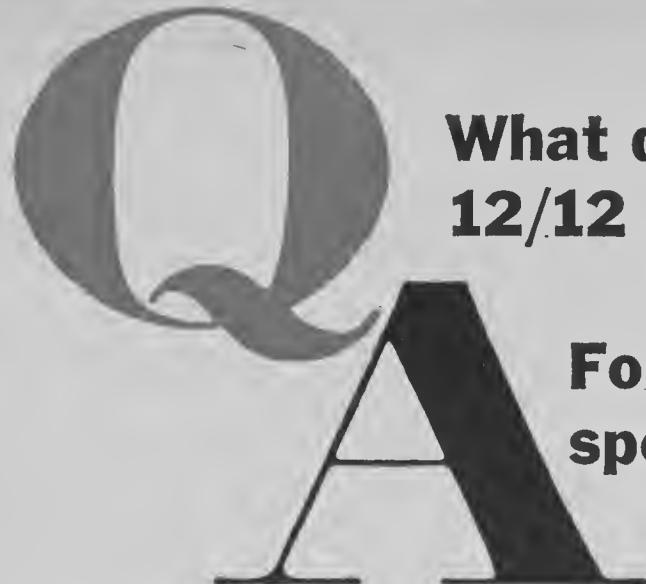
SASKATOON

EDMONTON



"The question these days is not 'why does' but 'how can' a chicken cross the road?"

# 12,000 MILE/12 MONTH WARRANTY



## **What does Ford of Canada's 12/12 warranty mean to you?**

### **Ford of Canada spells it out in full.**

Biggest news of this new-car year "broke" last September 30th. It was a historic day for new-car buyers—another industry-leading "first" from Ford—the first public announcement of the revolutionary new "12 MONTH/12,000 MILE WARRANTY" which now protects owners of *all* 1961 Ford of Canada cars and *all* British Ford Line cars (with Lincoln Continental, as you'd expect, warranted for 24,000 miles or *two* full years).

**Q: Why was Ford of Canada first to announce that its dealers had extended their warranty to 12 months or 12,000 miles, whichever comes first?**

A: Ford of Canada and its dealers were *confident of the quality, durability and reliability* built into the 1961 models of Ford and Falcon, Meteor and Comet, Mercury, Monarch and Thunderbird—Anglia, Consul and Zephyr.

**Q: If I buy a new Ford of Canada car every year at model-introduction time and drive no more than 12,000 miles a year, would this warranty mean that I would never have any major repair bills?**

A: Yes, if the car is given proper care and maintenance and is not neglected, abused or involved in an accident. If the car is within the 12-month/12,000-mile (whichever comes first) warranty period and receives proper maintenance, any failure, major or minor, resulting from a defect in workmanship or material would be covered. Repairs made necessary by neglect, abuse or accident, and any adjustment or part replacement requested by you as normal maintenance, will be the responsibility of the owner.

**Q: Exactly what is covered by the warranty?**

A: All component parts of the car except tires and tubes are warranted to be free of defects in work-

manship or material. Any part which fails because of a defect in workmanship or material except tires or tubes will be replaced or otherwise made good free of charge during the warranty period. Appropriate adjustments on tires and tubes will continue to be made by tire manufacturers.

**Q: What is not covered by the warranty?**

A: Anything that comes under the heading of normal maintenance.

**Q: What items should the owner regard as normal maintenance?**

A: While normal maintenance requirements may vary depending on the season, terrain and type of use to which the car is subjected, the following items will serve as a guide to the type of adjustment considered normal maintenance: Oil changes, oil filter replacements, brake adjustment, engine tuneups, fuel-system cleaning and wheel alignment and balancing.

**Q: What about batteries?**

A: Batteries found to be defective within the warranty period will be eligible for free replacement. Beyond this period all adjustments will be based on the number of months of service on the battery.

**Q: Is the warranty I get with my car given by Ford of Canada or by the dealer?**

A: By the dealer. The dealer's warranty is backed by the Company's warranty to him.

**Q: Suppose a part of my 1961 Ford of Canada car becomes defective during the warranty period and costs only 15 cents but the charge for installing it is \$7.50. Does warranty cover the labour charge?**

A: Yes. The cost of a part is often less than the cost of installing it. This makes no difference as far as warranty is concerned. When a defective

part is replaced it is installed free, provided the work is done by a Ford of Canada dealer.

**Q: What happens if my car requires warranty service when I am travelling away from home?**

A: Anywhere in Canada, the U.S. or Mexico, any dealer of the Ford organization will honour the warranty. Generally speaking, the same warranty coverage applies throughout the world. For example, a Ford-Taunus dealer in Germany will perform warranty work on your Ford-built car purchased in Canada. *Always* carry your Owner's Service Policy covering the warranty in the glove compartment of your car.

**Q: Sealed-beam headlights are not directly connected with the way the car runs. Are they covered by the warranty?**

A: Yes. The original sealed-beam light is covered for 12,000 miles or 12 months, whichever comes first.

**Q: Can I be reimbursed for work done during the warranty period by an independent garage?**

A: Your warranty does not apply to work done at independent garages or other dealerships, but if emergency warranty work is required where there is no Ford dealer or at a time when the dealer's service department is closed, an adjustment may be made by your Ford dealer. Naturally, you must satisfy the dealer that the work was paid for and that it is covered by the warranty.

All 1961 Ford of Canada cars right from the initial planning stages were designed and built to meet the exacting requirements of a 12,000 mile or 12 month warranty. This inbuilt *quality, reliability and durability* means lower operating costs for you. See your Ford of Canada dealer *now*.

*There's more of a future in your Ford-Built car*

**FORD OF CANADA**



**Field Crop****Recommendations**

(e); Cherokee, Avon, Keswick, Chippewa (m); Kennebec, Katahdin, in Sudbury-Walford area only (l). Zone 8 (plus Rainy River and Kenora): Norland, Irish Cobbler (e); Cherokee, Avon, Keswick, Chippewa (m). Huron replaces Sebago where scab is a problem. V

**QUEBEC**

(Varieties listed in order of preference)

**Oats.** Glen, Shefford, Garry, Roxton (Montreal region). Glen, Shefford, Garry (Eastern Township, Lake St. John). Glen, Garry, Shefford (Lower St. Lawrence). Glen, Shefford, Fundy (Gaspé Peninsula). Glen, Shefford (Abitibi-Temiskaming).

**Barley.** Parkland, York, Montcalm (Montreal region, Eastern Townships). Montcalm, York, Parkland (Lower St. Lawrence). York, Parkland, Montcalm, Fort (Lake St. John). York, Parkland, Montcalm (Gaspé Peninsula). Nord, Parkland (Abitibi-Temiskaming).

**Spring Wheat.** Acadia or Selkirk.

**Fall Wheat.** Kharkov 22 M.C. or Rideau.

**Fall Rye.** Horton.

**Buckwheat.** Japanese or Silver Hull.

**Field Beans.** Early: Clipper or Improved Yellow Eye; Medium: Corvette or Michelite.

**Field Peas.** Arthur, Chancellor or Valley.

**Grain Millet.** Early: Crown; Medium: Siberian.

**Silage Corn** (in order of maturity). Algonquin, Cornell M4, Pride 20, Pioneer 383, Warwick 401, K300, Jacques 1108J, Warwick 600, Pioneer 349, Funk's G30A.

**Grain Corn** (in order of maturity). Pride 4, Jacques 802J, Funk's G2, Warwick 155, Pride 5.

**Swedes.** Ditmars Bronze Top or Laurentian.

**Mangels.** Frontenac or Prince.

**Potatoes.** Early: Irish Cobbler; Medium: Katahdin; Late: Green Mountain or Sebago.

**Hay and Pasture.** LaSalle red clover. DuPuits, Narragansett or Vernal alfalfa. Empire or Viking birdsfoot trefoil. Ladino clover. Climax timothy. V

(Please turn to page 44)



**Seed Earlier...  
Harvest More**

# Avadex

## MONSANTO WILD OAT KILLER

Now, Canadian farmers can harvest more because there is no need for delayed seeding to control wild oats. Avadex\* actually kills wild oats as they germinate in the soil. No waiting to spray. This farm-proven Monsanto soil-treatment herbicide can be used before planting. Critical application time is eliminated. By seeding early with Avadex, wild oats are killed, crops are harvested early... yields are increased and profits are greater.

\*trademark of Monsanto Chemical Company



**MONSANTO CANADA LIMITED**

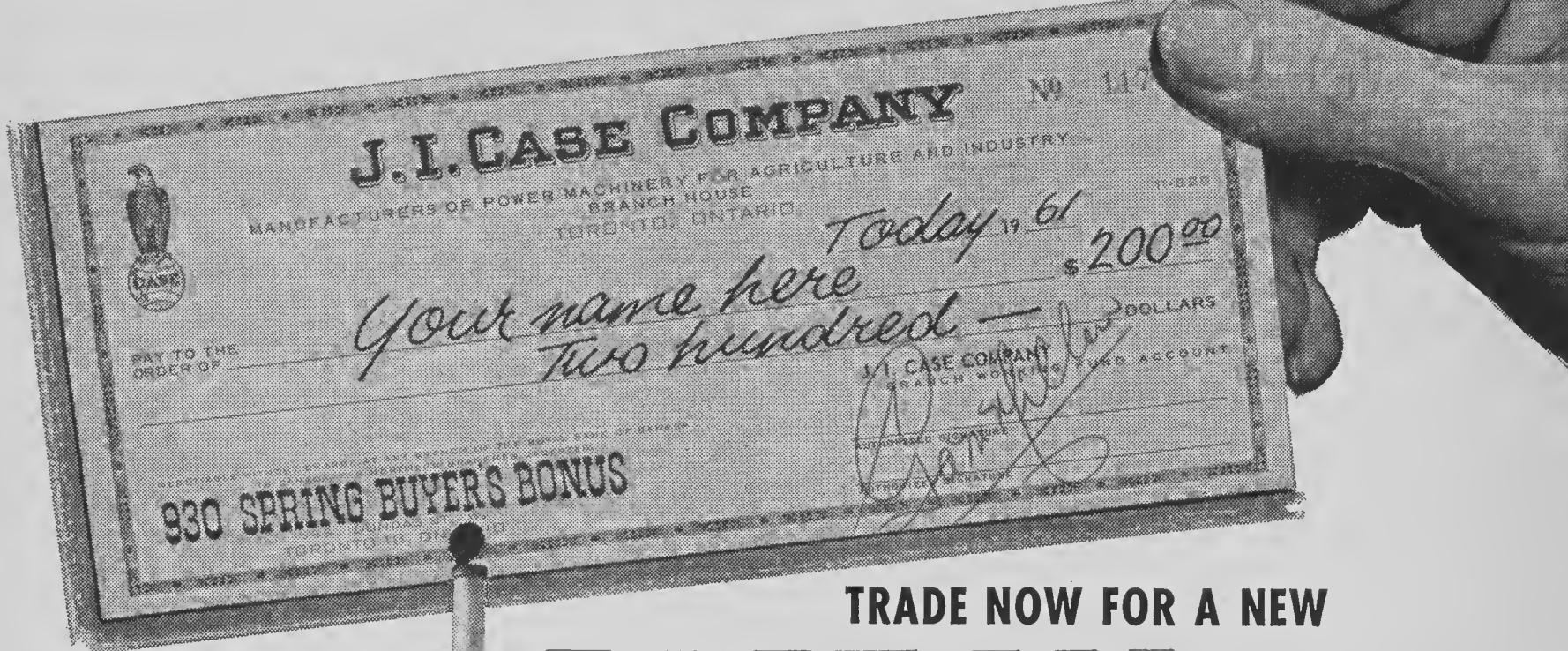
YOUR FARM SUPPLY DEALER WILL SOON BE SHOWING AN INFORMATIVE NEW FILM, "THE FIELDS TELL THE STORY," REPORTING HOW CANADIAN FARMERS PROFITED BY USING AVADEX IN 1960. ASK YOUR DEALER AND ALSO OBTAIN A COPY OF A NEW BOOKLET ON WILD OAT CONTROL; OR WRITE: MONSANTO CANADA LIMITED, P.O. BOX 147, WINNIPEG, MANITOBA.



*"Nellie always lays there. She's following a continued story in the paper."*



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**CANADA CREOSOTING**  
COMPANY LIMITED

## SOILS AND CROPS

### Field Crop Recommendations

#### ALBERTA

(Varieties given in alphabetical order)

Spring Wheat. Chinook, Rescue, Thatcher (zones 1, 2A, 2C). Chinook, Lake, Rescue, Thatcher (2B). Selkirk, Thatcher (2D, irrigated areas). Saunders, Thatcher (3A, 3B, 3C, 4A, 4B, 4C).

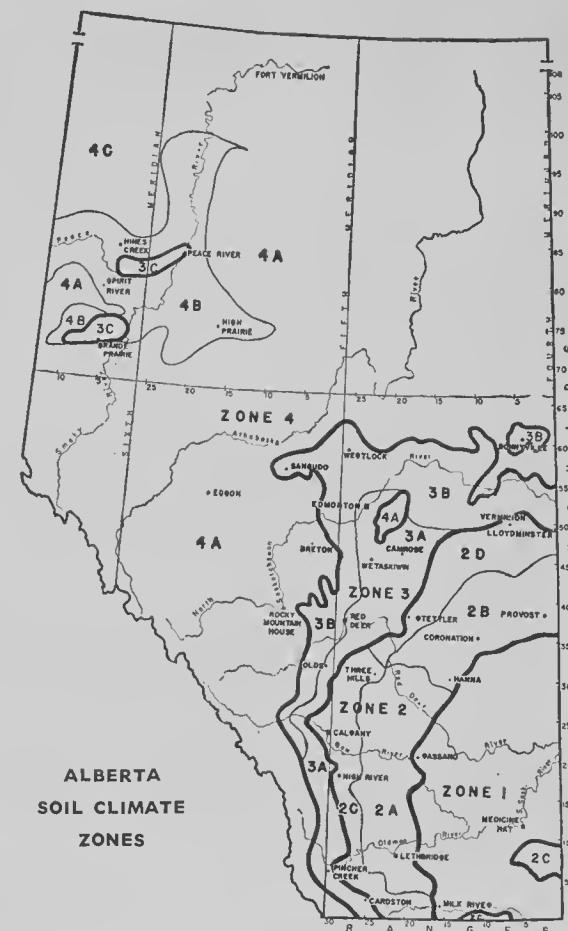
Barley. Compana, Palliser (zones 1, 2A). Husky, Parkland (2B). Betzes, Compana, Husky, Parkland, Wolfe (2C). Gateway, Husky, Parkland (2D). Betzes, Harlan, Wolfe (irrigated areas). Gateway, Husky, Parkland, Wolfe (3A). Gateway, Husky, Wolfe (3B). Gateway, Husky, Olli (3C). Gateway, Olli, Parkland (4A, 4B). Gateway, Parkland, Wolfe (4C).

Oats. Eagle, Exeter (zones 1, 2A). Eagle, Rodney (2B irrigated areas). Eagle, Garry, Rodney (2C, 2D, 3A, 3B). Abegweit, Victory (3C, 4B, 4C). Eagle, Garry, Larain (4A).

Flax. Redwood (zones 1, 2A, 2B, irrigated areas). Redwing, Redwood (2C, 2D, 3A, 3B). Marine, Redwing (3C, 4B). Redwing (4A). Marine, Redwing, Sheyenne (4C).

Durum Wheat. Mindum, Ramsey, Stewart (southern zones only).

Winter Wheat. Kharkov M.C. 22-hardy, Yogo (zones 1, 2A, 2C, 3A).



Soft White Spring Wheat. Kenhi, Lemhi 53 (grow under contract only).

Fall Rye. Antelope, Dakold, Petkus, Sangaste (first two hardier than Sangaste, which is hardier than Petkus).

Spring Rye. Prolific.

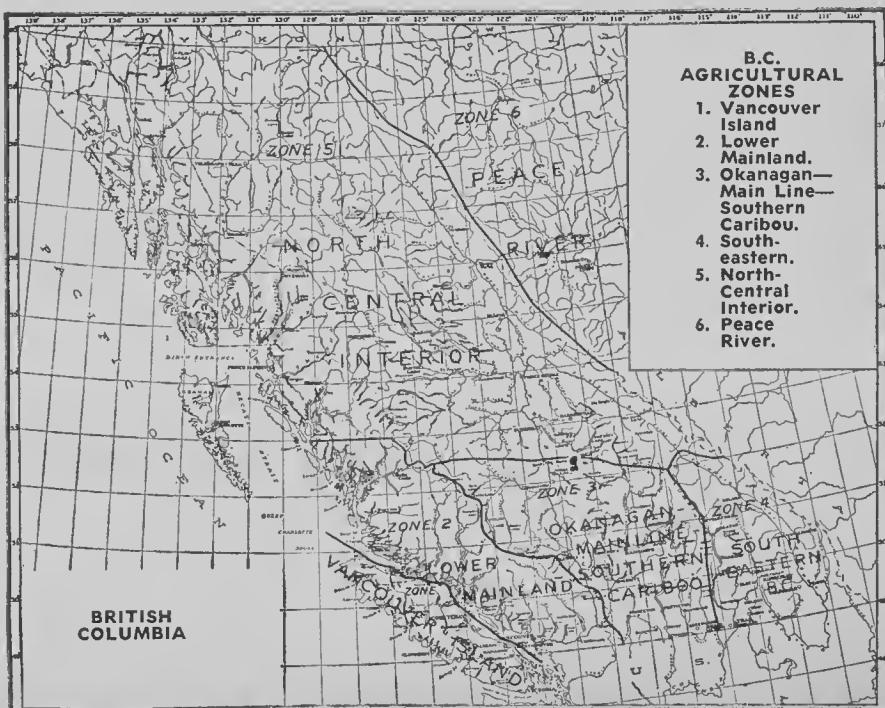
Rapeseed. Arlo (earlier), Golden. V

#### BRITISH COLUMBIA

(These are recommended varieties, not a list of every possible crop)

Hay and Silage. Zone 1: Austrian winter peas, LaSalle red clover, Vernal alfalfa, Mammoth Russian sunflowers. Zone 2: LaSalle red clover, DuPuits alfalfa, Climax timothy.

Zone 3: Fairway crested wheatgrass, Vernal or Ladak alfalfa, Manchar brome. Zone 4: Ladak alfalfa. Zone 5: Rhizoma alfalfa, Altaswede and Manhardy red clover, Arctic and Erector sweet clover. Zone 6: Ladak alfalfa, Arctic or Cumino sweet clover, Altaswede red clover, Northern commercial brome, Climax



## SOILS AND CROPS

Field Crop  
Recommendations

timothy, Summit or Nordan crested wheatgrass.

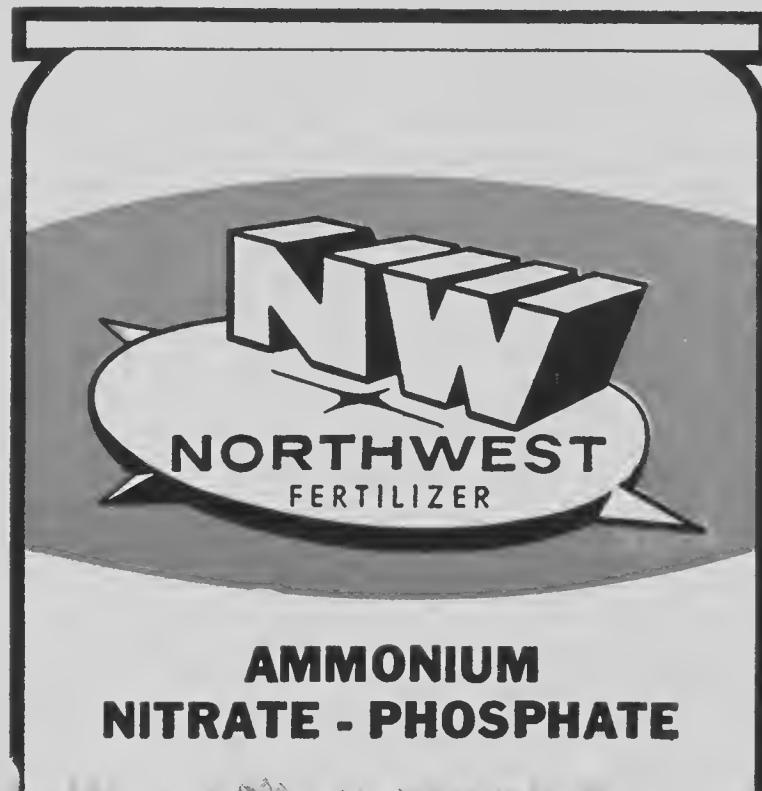
Corn Silage. Zone 1: Wisconsin 355, Wisconsin 531, DeKalb 65. Zone 2: Pioneer 383, DeKalb 65, Warwick 401, Warwick 311. Zone 3: Early-DeKalb 65, Pioneer 382; medium-DeKalb 240, Pioneer 352.

Pasture. Zone 3: Fairway crested wheatgrass, Ladak alfalfa, Manchar brome. Zone 6: Rambler or Ladak and Rhizoma alfalfa, Manchar or Northern commercial brome, Olds creeping red fescue.

Cereals. Vancouver Island: Sun winter wheat; Eagle or Abegweit oats, Turf winter oats (south only); Trebi barley. Fraser Valley: Dawson's Golden Chaff winter wheat; Eagle, Ajax, Abegweit, Rodney or Garry oats; Vantage, Olli or Herta barley. North Okanagan: Ridit or Wasatch winter wheat; Thatcher or Saunders spring wheat; Eagle, Ajax or Victory oats; Vantage barley. Boundary-Bridgerville-Grand Forks: Ridit, Wasatch or Kharkov winter wheat; Saunders, Regent or Red Bobs spring wheat; Ajax, Eagle or Abegweit oats; Vantage or Warrior barley. East Kootenay: Kharkov winter wheat; Marquis spring wheat; Eagle or Ajax oats; Vantage barley. West Kootenay: Kharkov winter wheat; Redman or Selkirk spring wheat; Eagle or Rodney oats; Vantage or Husky barley. Quesnel to Williams Lake: Saunders spring wheat; Ajax or Eagle oats; Olli barley. North Cariboo, Prince George, McBride and Vanderhoof: Saunders spring wheat; Ajax or Dasix oats; Olli or Montcalm barley. Lakes district, Bulkley and Skeena valleys: Saunders spring wheat; Ajax oats; Olli or Montcalm barley. Peace River: Saunders or Thatcher spring wheat; Abegweit or Victory oats; Olli, Gateway or Husky barley. Storm fall rye is recommended in all southern areas; Redwing and Rocket flax are recommended in Peace River District.

Potatoes. (e-early, m-main crop). Vancouver Island: Early Epicure, Warba (e); Netted Gem, Green Mountain, Columbia Russet, Burbank (m). Lower Fraser Valley: Early Epicure, Warba, Katahdin, White Rose (e); Netted Gem, Green Mountain, Canso, Keswick (m). North and South Okanagan: Early Epicure, Warba, Irish Cobbler (e); Netted Gem, Katahdin (m). East and West Kootenay: Early Epicure, Warba (e); Netted Gem, Columbia Russet (east only), Green Mountain (m). Boundary: White Rose, Warba (e); Netted Gem (m). Cariboo, Quesnel, Williams Lake: Warba, Early Epicure (e); Netted Gem, Green Mountain (m). Prince George, Vanderhoof, McBride: Warba (e); Green Mountain (m). Bulkley Valley, Upper Skeena: Warba (e); Gold Coin (m). Lower Skeena (Terrace): Warba, Early Epicure (e); Gold Coin, Kennebec for trial (m). Peace River: Warba (e); Canus, Irish Cobbler (m).

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FERTILIZERS!**



**AMMONIUM  
NITRATE - PHOSPHATE**



**YOUR LAND DEMANDS** plant food to replace that used up by previous crops.

**YOU DEMAND** better crops . . better profits.

**MORE AND MORE SUCCESSFUL FARMERS** are finding that Northwest Fertilizers answer these demands!

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A complete family  
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11-48-0 AMMONIUM PHOSPHATE  
16-20-0 AMMONIUM PHOSPHATE SULPHATE  
27-14-0 AMMONIUM NITRATE PHOSPHATE  
24-20-0 AMMONIUM NITRATE PHOSPHATE  
33.5-0-0 AMMONIUM NITRATE (NITRO CUBES)  
23-23-0 AMMONIUM NITRATE PHOSPHATE

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# FIRST OWNER REPORTS on John Deere's



**"You Can Use the "4010" For Everything—Economically"**

"I can really cover ground with the additional power of the "4010." I have a 16-foot tool carrier equipped with 16-inch sweeps, and that's a real load for any tractor. My old "80" handles this outfit in 3rd gear; the "4010" takes it away in 5th. That's a jump from 7 acres per hour to 12. I got 10 hours on a tank of fuel. The point is, I've been somewhere on that tankful. The overlapping speed ranges let you work the tractor and equipment exactly to match conditions. Light loads can be handled economically and as easily as with a smaller tractor; yet, you have the power for big jobs. To sum it up, my "4010" is versatile. It's a light tractor, a heavy tractor, a hauling tractor. You can use it economically for everything."

JOHN WITWER, Stettler, Alberta



**"My "4010" Saves Me One Man And a Tractor On 1120 Acres"**

"I bought my new "4010" Tractor because I wanted to get more done in less time. Not only does the "4010" do this; it also makes it possible to handle the entire operation ourselves. This "4010" enables me to farm 1120 acres which used to require two tractors. Now I have a saving of one tractor and a man. I especially like the terrific torque this engine has. We've worked a 4-bottom John Deere 416 Plow at 800 rpm—and we were plowing eight inches deep. You can get practically any speed you want through the full range of gears and throttle settings. I've found higher gears and low throttle settings handle light work and lower gears with full throttle do the heavy work. I'm convinced these features will give real economy on all operations. The "4010" is far ahead of any other tractor I've ever seen or operated."

MARK WILHELM, Bentley, Alberta



**"You Have To Handle "3010" To Appreciate Its Many Features"**

"The "3010" has proved that it has plenty of power for my implements—a 12-foot John Deere Disk Tiller, a 4-bottom plow, and a 12-foot cultivator. In addition to its power, there are several other features I like—the choice of working speeds, the short turning radius, the location of the controls, and the uncluttered platform. The shifting on-the-go and the direction-reverse feature should speed up our loading operations. I like the new foot clutch, too; it operates smoothly and leaves both hands free. You have to handle the "3010" yourself to fully appreciate its many features."

ALEX TURNER, Wellwood, Manitoba

# New Generation Tractors



**"The "4010" Has Done Everything I've Asked It To Do"**

"I like the "4010's" wide range of ground-travel speeds, its efficient working speeds, and its unlimited power. This fall, the "4010" pulled four 16-inch bottoms through virgin soil without slippage or overloading the engine. I tested its power with a 15-foot disk tiller; it walked away with it in 6th gear. I like the "4010" and its smooth-running engine. The "4010" sounds good, feels good, and has done everything I've asked it to do."

ROBERT J. MUNROE, JR., Warren, Manitoba



**"I Need the Power and Speed This "4010" Gives Me"**

"I bought my "4010" Diesel Standard because I wanted more power, Diesel fuel, and because I wanted to farm more land. I do most of the work myself, so I need the power and speed this tractor gives me. I've used a 12-foot tool carrier and a 12-foot KBA Disk Harrow. This 6-cylinder engine has plenty of power to pull these outfits in 4th gear in hard ground conditions. I used only 2½ gallons of fuel an hour in heavy work. I like the many speed selections. You have a full range of speeds."

FLOYD MCMULLEN, Innisfail, Alberta

*Enthusiasm! These proud owners have it. Acceptance! These New Generation Tractors are earning it. Your John Deere dealer has a power size, model, and fuel type that's just right for you. He urges you to see and drive a new John Deere Tractor. Ask about the liberal John Deere Credit Plan.*



**"The "3010" Makes Farming Much Easier For Me"**

"The "3010" has plenty of power, a good range of working speeds, and is very comfortable to operate. It's my first power-steering tractor and certainly handles nicely. The power brakes and power steering require little effort. The seat is very comfortable; you just float along. I like to stand for a change of pace and the roominess of the platform will be welcomed. The "3010" makes farming much easier for me."

CHARLES R. BASKERVILLE, Killarney, Manitoba

**JOHN DEERE design, dependability, and dealers MAKE THE DIFFERENCE**

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## SOILS AND CROPS

# Double-Action Control For Weeds with Atrazine

by PROF. GEO. JONES

Department of Field Husbandry, Ontario Agricultural College

LAST year, atrazine was hailed as the most promising selective herbicide to hit the market—one that could well turn out to represent a major breakthrough in weed control. It was outstanding as a pre-emergent herbicide for corn, and was recommended for use that way. But it also showed signs of being potent for postemergent use too.

Well, it lived up to advance billings last summer, and is fully recommended for postemergent use this year. It should make weed control in the corn field easier than ever. Even twitch grass, which defied farmers for generations, is cut down to size with atrazine. Twitch can be eliminated from a field while a full-sized corn crop is being grown.

One secret of atrazine is that it has a unique double action. The herbicide simazin, which it virtually replaced last year, had to be applied to the soil before the weeds germinated. It killed weeds by being absorbed through the roots, choking off the life processes of the plants. Atrazine does this too, and does it even better. But it does more. Atrazine is absorbed through the leaves and stems, as well, to kill the plants. This means if it is applied when the weeds are growing (no more than 3 inches tall for best results) it will be absorbed into the plants to kill them, without damaging the corn. Since some of the herbicide also falls on the soil at time of application, it will act as a pre-emergent too, killing any weeds that germinate later.

THIS double-action was first noticed with disbelief by scientists in early trials with the herbicide a couple of years ago. In 1959 evidence was strong enough to arouse distinct curiosity. In 1960, evidence piled up to verify these suspicions. Atrazine is now fully recommended as a first-class herbicide for post-emergent use.

Postemergent application has caught the imagination of corn people with surprising suddenness. One big U.S. seed corn company treated its entire crop last year with excellent results.

What about costs? Atrazine costs about \$3 per lb., and 2 lb. per acre give good control. For an absolutely clean field, with a 100 per cent weed kill, 4 lb. can be used. Band applications will cost half as much.

Postemergent application has several advantages over pre-emergent ones:

- You can see how weedy the field is before applying it.
- You can apply it after the rush of seeding is past. Any time within 3 weeks of germination of the corn and weeds is satisfactory.
- Soil type is less important. Heavy soils require heavier applications of pre-emergent herbicides, but

postemergents overcome the effects of soil types to a large extent by working directly on the plant.

- The residual period of effectiveness is shorter than where the entire

action is through the soil. (This may or may not be an advantage, depending on the conditions.)

There are disadvantages to post-emergent applications as well. For one thing, centering on the corn row will be more difficult.

Twitch grass, of course, requires special attention. Eight pounds of atrazine would kill twitch without hurting the corn but this would be expensive. A cheaper way is to spray twitch-infested fields with 2 to 4 lb. of Amitrol-T in the spring, a week before the field is to be worked. Then, use atrazine in the normal manner as a postemergent. V

## Effort to Wake Up Dormant Wild Oats

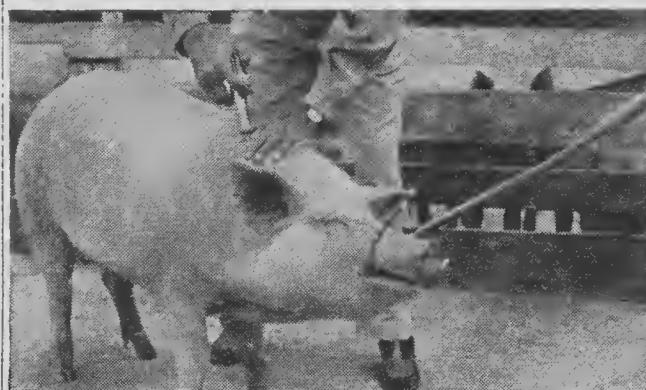
WORK is going ahead in the field husbandry department of the University of Saskatchewan to solve the tricky problem of the dormancy of wild oats. Discovery of some means to break this dormancy would result in better control of wild oats by cultural or chemical treatments.

There are three factors now known to affect dormancy. These are described as inhibitors, gibberellins and sugars. It is suspected that one or more natural chemicals in the wild oat seed prevent its germination.

## HOW TO MOBILIZE AGAINST YOUR BIGGEST RISK TO HOG INCOME

*That risk is disease. This coordinated, feed-health program prevents diseases from establishing "beachheads" on your farm.*

*It's a practical program! Follow it step by step and you'll see.*



**1. Start the fight against disease before breeding.** Have your veterinarian blood-test for brucellosis and leptospirosis. One month before breeding, vaccinate for erysipelas with DUOVAX® Erysipelas Bacterin and for leptospirosis with LEBAC® Leptospira Pomona Bacterin. If testing shows leptospiral infection, feed 400 grams of AUREOMYCIN® per ton of total ration for 14 days to reduce abortions and mortality of new-born pigs.



**2. Strengthen farrowing sows when they need it most.** Always feed a good formula feed containing 200 grams of AUREOMYCIN 7 to 10 days before farrowing and 7 days after farrowing. AUREOMYCIN helps eliminate bacterial infections from sows and their surroundings. Because AUREOMYCIN is absorbed by the sow, some of its power is passed along to pigs in the sow's milk.



**5. Getting pigs off to a good start.** Your starter feed is the most important swine feed you buy. It protects your pigs at the most critical period. Stressors such as moving, handling, weaning, vaccination and bad weather often lead to bacterial infections. Be sure your starter feed contains AUREOMYCIN at 100 grams per ton of feed. AUREOMYCIN prevents scours, saves pigs, helps eliminate runts.



**6. Don't risk erysipelas.** Don't gamble with costly diseases—make vaccination a "must"! Vaccinate (at 6 to 7 weeks) for erysipelas with DUOVAX. DUOVAX gives solid immunity to erysipelas. Keep pigs on starter feed for at least one week after vaccination.

**CYANAMID**

CYANAMID OF CANADA LIMITED  
MONTREAL 2, QUEBEC

## SOILS AND CROPS

This may be because the inhibiting chemicals curtail production of sufficient sugars from starches for germination. This needs to be proved.

Another approach would be to use gibberellic acid to increase the sugars in the seed, and therefore to increase the chances of germination. In this connection, it has been found that dormancy seems to be related to the growth habit of the plant. Those with the most dormancy appear to be the ones that have dwarf growth. Gibberellic acid is known to have a

greater effect in stimulating dwarf plants (not only wild oats) rather than the naturally taller ones.

Another interesting fact reported by the researchers at Saskatoon is a fall-off in dormancy as time passes. In some species of plant the fall-off is rapid and is not really a problem. The fall-off in the dormancy of wild oats is not so rapid but it does occur. Gibberellic acid added at one stage of dormancy will break it to a degree—say 20 per cent. But added after ripening, the percentage rises.—R.C. V

Half-way measures are just not enough! Pork producers need to go all-out... to mobilize every resource to guarantee a profitable hog operation.

This means selecting top-quality, blood-tested breeding stock. It means using good formula feeds, good management, housing and sanitation.

It means getting out there *every* day and "looking over" the entire herd to spot signs of disease. It means moving fast to close loopholes. It means being alert to *sense* the

presence of disease even when you can't *see* it.

*Disease, visible or invisible, is by far the biggest risk to profitable hog raising. It can smash you at any production stage.*

Why gamble? You can lick most diseases before they start by following the coordinated, step-by-step plan shown on these pages.

This feed-health program is practical, easy-to-do and money making. It gives you this powerful *double-punch*: (1) Good formula feeds, and

## Recipe for Bumper Harvest

**W**HAT makes a good grain grower? In the first place he needs good land, and Bill Loveless has three quarter-sections of it just north of Indian Head, Sask. This heavy clay soil is among the best in the province, and it has a good drainage northward into the Qu'Appelle Valley.

The second asset is good husbandry. Bill's father moved to the Indian Head district from Manitoba 60-odd years ago, and like his father, Bill has kept the soil in good tilth.

He summerfalls half each year. His season's program includes going over stubble with a disk, and then using a cultivator as much as 3 or 4 times in a year, if possible. He also uses harrows once or twice if the trash is heavy. Only rarely, when the straw is completely beyond control, has he resorted to burning patches of it.

Despite all that could be done, there was a fair amount of soil blowing in the "Dirty Thirties," and there has been some erosion along the banks of a coulee, too. Bill has been using 40 lb. per acre of 11-48-0 fertilizer on the weak spots, and likes the results so well that he plans to use it more extensively in the future.

For many grain growers like Bill Loveless, 1960 was a banner year. Careful cultivation paid dividends.



Guide photo  
Bill Loveless on his tractor working over summerfallow in the fall.



**3. Preventing baby pig anemia is easy.** The one essential element lacking in sow's milk is *iron*. You supply this element, prevent anemia and obtain faster weight gains when you inject pigs with **PIGDEX®** Injectable Iron at 2 days of age. At the same time, give your pigs one dose of **AUREOMYCIN PIGDOSEER**. In this way, you provide the wide-spectrum antibiotic to pigs at the earliest moment, before they start eating a dry feed—to help prevent scouring and keep baby pigs thriving.

**4. Keep sows milking well.** During lactation, your sows need plenty of energy, proteins, minerals, vitamins and **AUREOMYCIN** to maintain the strength of themselves and their pigs. Feed **AUREOMYCIN** in a well-fortified lactation ration at 50 grams per ton of total feed. This will keep sows healthy and reduce bacterial infections. And **AUREOMYCIN** will continue to hold down contamination on the premises.



**7. How to insure low-cost gains in growing pigs.** You want your pigs to hold on to their early, healthy gains. During the 35 to 75-pound period, pigs can still be retarded by bacterial enteritis, atrophic rhinitis, and "unseen" diseases. With **AUREOMYCIN** at 50 grams per ton of total feed, your pigs won't waste feed fighting these diseases—they'll use their feed efficiently to put on maximum gains at low cost.

**8. Final step: market more top-quality hogs earlier.** To avoid set-backs and save up to 40 pounds of feed during this final period, provide a supplement that will supply 50 grams of **AUREOMYCIN** per ton of total feed whenever trouble shows up. This protects against subclinical diseases, bacterial enteritis—keeps your hogs healthy. You market more top-quality hogs.

*The label instruction on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research both in the laboratory and in the field. Always read the labels and carefully follow their directions for use.*



His main crop, Selkirk wheat, made 40 bushels to the acre, well above average. He had 40 acres of Montcalm barley and got 60 bushels per acre, compared with his usual 35 to 40 bushels. This was his best ever in an area that is not reckoned especially good for barley. He had all the barley accepted for malting. His 30 acres of Rodney oats gave him about 70 bushels per acre, and a lot of it will be sold for seed.

One of the most pleasing features for Bill was his success with durum wheat. He tried some "for the heck of it" a while ago, and has set aside a small acreage for it ever since. He grows most of it along the coulee where erosion has done some damage. In 1960, from only 20 acres, he was able to harvest 700 bushels of durum and sold it immediately.

Seeding started for Bill Loveless around May 12 last spring. The land was very wet, but this moisture proved useful during a summer that was both hot and dry. His clay soil prevents a lot of moisture from rising up and evaporating.

Finally, the promise of a good crop was fulfilled in a warm and sunny late summer. Bill had everything harvested by September 3, which is the earliest completion he can remember. So he was in a good position to store his harvesting equipment in the machine shed and still have time to work over his land in the fall—making ready in his steady, way for "the next one."—R.C. V

# This spring... be sure sow **CERTIFIED** seed

Today's high cost of producing cereals, pasture, hay and cash crops requires *top quality seed*. Anything less jeopardizes your whole investment. Fortunately, you can now choose Canada Certified seed and be sure.

*To protect you:*



1 New crop strains offering higher yields and better performances have been developed.



2 These are field tested under various growing conditions throughout Canada.



3 Foundation crops grown by members of The Canadian Seed Growers' Association are closely checked in both field and laboratory for varietal identity, purity, germination, disease and weeds. Only crops meeting high standards qualify for certification.

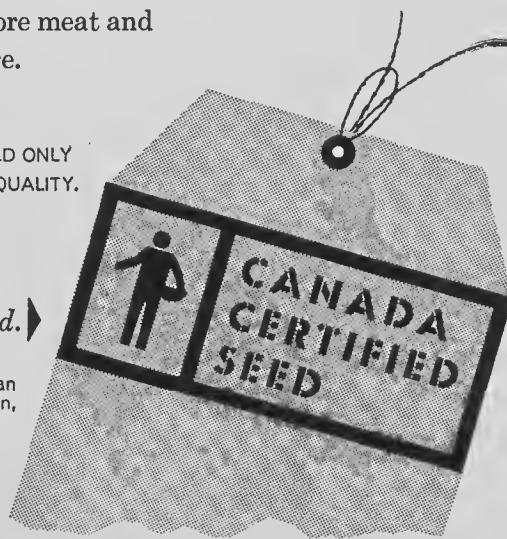
With **CERTIFIED** seed you can be sure of...

High seed quality... of the varieties recommended for your area... offering surer yields, and resulting in better grades, less dockage, more meat and milk per acre.

CERTIFIED SEED IS SOLD ONLY  
UNDER THIS SEAL OF QUALITY.

Look for this  
when you buy seed.

Prepared by The Canadian Seed Growers' Association, Inc., in the interest of Canadian agriculture.



## SOILS AND CROPS

### Forage Crops For Hot, Dry Seasons

*Sorghum and sudan grass won't replace corn but they make good pasture and soiling crops*

THE hot weather crops, sorghum and sudan grass, may find an important place on Canadian farms after all. They still won't yield as well as a good field of corn, but growth was better than expected in trials at the O.A.C. last summer. And they have some characteristics that could make them valuable to farmers, particularly in Ontario.

These crops are suited to light, sandy land. They can withstand drought better than corn, so they would be ideal for dry hot years. And they can be seeded later than corn—as late as June 20—and still produce a heavy tonnage of forage for late summer and fall use. In fact, they could prove to be excellent emergency pasture crops, seeded late when the need is apparent, and grazed off in late summer or fall, or clipped as a soiling crop. Grazed or clipped off while still less than 3 feet tall, they will make strong regrowth.

They are not good silage crops because their moisture content is too high. Corn is much superior for that.

Despite the good characteristics of sorghum and sudan grass, Prof. George Jones of O.A.C. says that corn is still the best as a silage or soiling crop on farms where the new corn hybrids can be grown successfully. The hot weather crops should never be considered a replacement for corn. Little information is available yet about their feeding value.



Guide photos  
Prof. Jones looks at sudax (sorghum x sudan grass). In solid seeding it yielded 6 tons dry matter per acre.

Sorghum is a better silage or soiling crop.

How do you grow these crops?

There are problems. Sorghum particularly makes slow initial growth, and can't compete with weeds in the early stages. Selective herbicides were used at Guelph to eliminate weed competition, with excellent results.

Sorghum should be seeded in late May or early June (unless intended as a late emergency crop) at 3 to 4 lb. per acre, in corn-width rows. Sudan grass for pasture or soiling should be seeded solid in late May to mid-June, at 25 lb. per acre. The variety Piper has given the best pasture yields at Guelph. Sudax intended for silage or for a soiling crop should be seeded in rows at 4 lb. per acre. If it is intended for pasture, seed solid at 20 lb.

Sorghum alnum can be seeded at 2 to 3 lb. per acre in 36-inch rows, or 6 lb. per acre in solid seedings. However, this was declared a noxious weed in Kansas recently.

In weed control trials with the hot weather crops at O.A.C. the pre-emergent herbicide propazine (which is a close relative of atrazine and simazine) gave good control. The plants were grown in both row and solid seedings, and in the solid seedings, where weeds were controlled, yields were about 15 per cent higher. Weed control is important because these plants grow slowly in the early stages, and won't compete with weeds then.—D.R.B. V



Sorghum (r.) did well last year, but corn (l.) is better in normal years.

THERE are various kinds of these hot weather crops. In addition to sorghum and sudan grass, there is sudax, a cross between the two of them, as well as sorghum alnum.

Professor Jones suggests that sorghum could be better than corn as a soiling or silage crop on sandy land, or where there is hazard of drought at tasseling time, for it will lie almost dormant during the drought, then surge into fast growth once moisture arrives.

Either sudax or sudan grass makes better pasture than sorghum does.

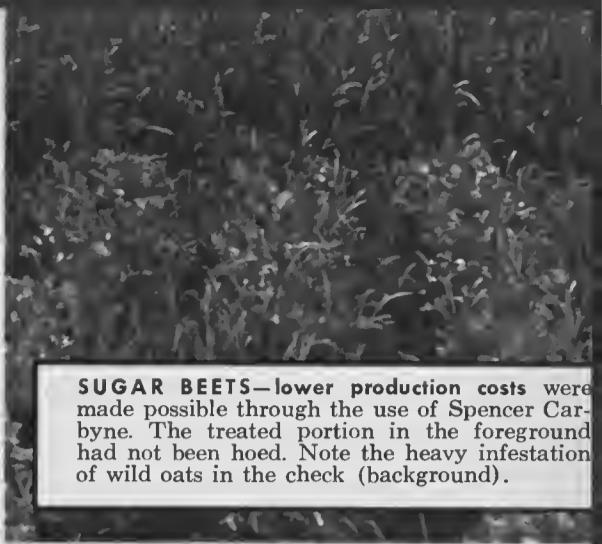




**WHEAT**—9.2 extra bushels per acre was the average yield increase in Canada where Carbyne was used to control wild oats. Note that the Carbyne-treated wheat (left) is virtually free of these yield-reducing weeds.



**BARLEY**—12.5 extra bushels per acre was the average yield increase where Carbyne was used to control wild oats in Canada. Carbyne's effectiveness is illustrated by the dramatic contrasts in the photo above.



**SUGAR BEETS**—lower production costs were made possible through the use of Spencer Carbyne. The treated portion in the foreground had not been hoed. Note the heavy infestation of wild oats in the check (background).

With 2356 Successful Farm Tests, Spencer Chemical Company Proves

# CARBYNE\* STOPS WILD OATS

Spencer Carbyne is the only wild oat herbicide you can apply  
AFTER you see the wild oats:

## What Is Carbyne?

Spencer Carbyne Wild Oat Herbicide is an amazingly selective weed killer that can take a grain (wild oats) out of a grain (such as wheat or barley). It is an emulsifiable concentrate designed to be mixed with water and sprayed directly on the wild oat plants.

## How Does Carbyne Work?

Wild oat plants sprayed with Carbyne, while they are in the 2-leaf stage, become stunted and stop growing. Most of them eventually die. The wild oat plants which are not killed by Carbyne are stunted so severely that they produce only small seed heads at best.

## On What Crops Can Carbyne Be Used?

We recommend Spencer Carbyne Wild Oat Herbicide for unrestricted use on: SPRING WHEAT,

DURUM WHEAT, BARLEY, SUGAR BEETS, PEAS and RAPE. Carbyne is accepted FOR TRIAL USE ONLY on flax. These recommendations are based on the results of three years of experiment station field testing, three years of Spencer Research field testing and the 2356 successful farm tests in 1960.

## What Can Carbyne Do For You?

When correctly applied, Spencer Carbyne can cut your production costs and increase your yields these eight ways:

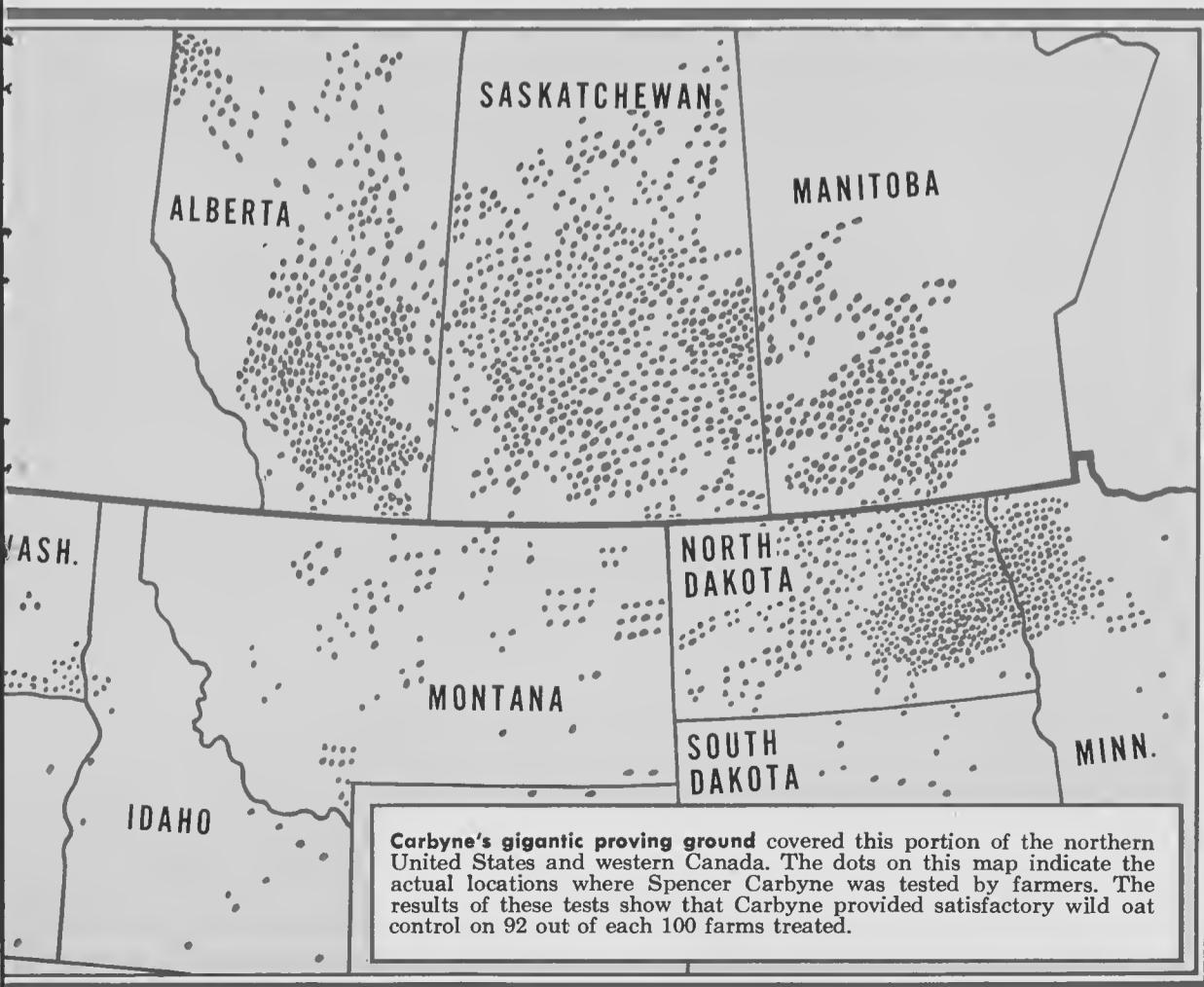
1. Permits earlier planting and thus reduces risk of late maturity.
2. Eliminates possibility of complete crop loss and need for reseeding due to excessive wild oat infestation.

3. Permits your crop to utilize fertilizer, moisture and natural soil nutrients more efficiently by virtually eliminating competition from wild oats.
4. Makes possible easy and effective cultivation of row crops.
5. Minimizes the amount of tillage required for weed control.
6. Reduces dockage due to wild oats.
7. Regular annual treatment will promote improved future wild oat control by reducing the number of wild oat seeds in your soil.
8. Works with maximum economy since Carbyne is the *post-emergence* herbicide which you apply only to infested areas.

## What Does It Cost To Control Wild Oats With Carbyne?

The cost of Spencer Carbyne for controlling wild oats, for most close-seeded crops and sugar beets (banded), is only about \$4 to \$5 per acre of weed-infested crop area. Because treatment can be confined to the areas where wild oats are actually visible, you need not waste your time and chemical on fields which are not infested.

*"For Victory Over Wild Oats,  
Spray Them With CARBYNE  
When They Are In  
The 2-Leaf Stage!"*



Carbyne's gigantic proving ground covered this portion of the northern United States and western Canada. The dots on this map indicate the actual locations where Spencer Carbyne was tested by farmers. The results of these tests show that Carbyne provided satisfactory wild oat control on 92 out of each 100 farms treated.



Save this  
information

# How To Use Spence To Boost Your Yield

## Follow These 6 Simple Steps Carefully...

### 1 CONTACT YOUR DEALER NOW TO RESERVE YOUR Carbyne SUPPLY:

Chances are you will have wild oats on your farm this year. The only question is where they will appear. Since Carbyne is the post-emergence wild oat killer, you apply it just where

you actually see wild oats. However, because of the remarkable results obtained with Carbyne last year, the demand for Carbyne may be overwhelming this spring. Why take chances on being left out? See your dealer now and put your name on his "Preferred List for Carbyne". This way you will be sure to get your supply of this proven post-emergence herbicide.

### 2 MAKE SURE YOUR EQUIPMENT IS READY TO GO:

While no special equipment is required to apply Spencer Carbyne Wild Oat Herbicide, it is vitally important to check your spray equipment in advance of application time. Only by making any needed repairs and adjustments ahead of time, can you be ready to spray wild oat plants at the precise growth stage when Carbyne will be most effective!

Be sure tank, nozzles and lines are clean. Use only the nozzles shown in the chart or their equivalent. All nozzles on a sprayer should be of the same make and number. Each nozzle should be checked for flow rate (see chart). If you use a fan-type nozzle, improved results can be obtained by turning the boom forward so nozzles are at a 45° angle. Be sure to note necessary adjustment. When spraying, it is important to operate at the proper speed at all times.



Nozzle No. Use Only These Nozzles or Their Equivalent	Flow On One Nozzle—Fluid Ounces per Minute At 45 lbs. Pressure	Tractor Speed to Deliver 4 gal. Per Acre*	Height of Nozzle Over Crop
	Miles Per Hour	Feet per Minute	
Monarch No. 20	7	3.4	288 22 inches (see note)
Monarch No. 22	9 1/4	4.3	375 22 inches (see note)
Monarch No. F97-6.4	9 1/4	4.3	375 20 inches
Teejet No. 650067	9 1/4	4.3	375 22 inches (see note)
Teejet No. 730077	10 1/2	4.9	430 22 inches (see note)
Teejet No. X-4	9 1/4	4.3	375 20 inches

NOTE: If fan nozzles are used at 45° angle, they should be set 16 inches above the crop.

\*Based on 20" nozzle spacing.

You wouldn't use your grain drill with missing wheels or with some spouts broken off and others pointing in every direction. The same applies to your spray equipment. Be sure it is in good condition so it can spray Carbyne at any of the rates shown in the table at left:

### 3 CHECK FOR FIRST INDICATION OF WILD OAT INFESTATION:

After cultivating and seeding, check your fields every day so you will know the exact areas where wild oats are emerging. It may be necessary to apply Carbyne as early as four

days after you start seeing wild oat plants. This means that you must have your Carbyne supply on hand and your sprayer calibrated and ready for use.

# er Carbyne Wild Oat Killer Farm Profits This Year:

## 4 WATCH THE WILD OAT GROWTH STAGES TO SELECT THE MOST EFFECTIVE APPLICATION TIME:

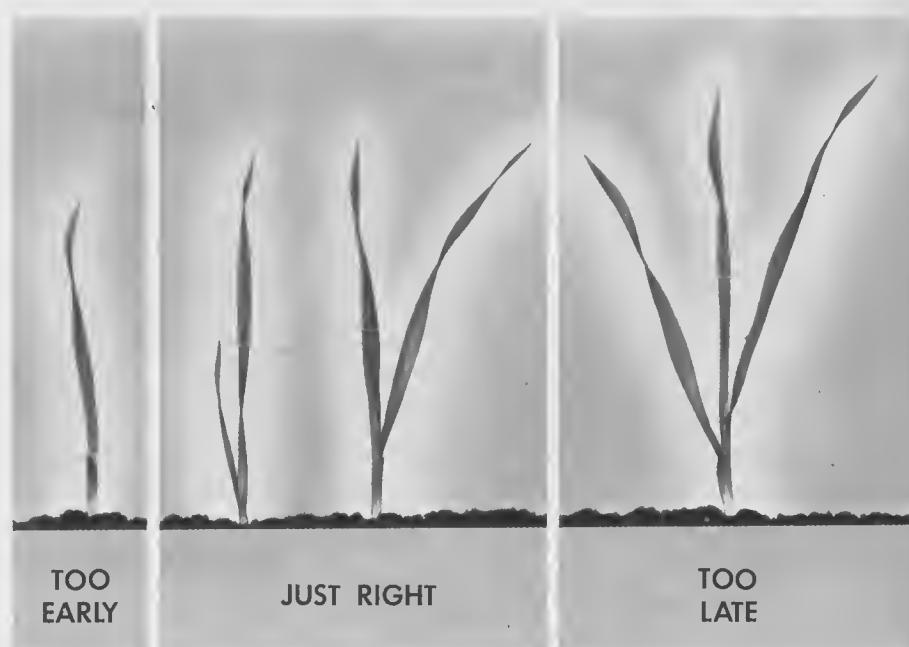
**Wild oat plants must be sprayed** in the proper stage of growth. This is probably the one most important factor in assuring the complete success of your wild oat control program!

**Carbyne must be applied** when the majority of the wild oats are in the two leaf stage. The two leaf stage is from the time the second leaf first appears until the third leaf first appears. Examine the field daily. The second leaf may appear four days after emergence. The third leaf may appear within nine days after emergence. (See Exception below.) Earlier or later application under good growing conditions will result in less wild oat control. Some stunting may be noted on wheat and barley when sprayed after these crops have passed the third leaf stage; this is when the fourth leaf first appears.

**EXCEPTION:** (a) If cold or dry conditions exist or under conditions of low fertility, the growth of the wild oat will be retarded. If the majority of the wild oats have not reached the two leaf stage in nine days, spray before the fourteenth day after emergence. (b) When counting the number of wild oat leaves to determine that the plant is in the proper stage for treatment, count the first leaf even though it has been damaged by wind or frost. Apply Carbyne up to the time the third leaf first appears. The resulting control will be less than normal due to the loss of this first leaf.



Here is a dependable method for determining when to apply Spencer Carbyne. Lay out four or five one foot square areas at representative intervals over the field. Pull up all the wild oat plants in each of these areas.



Let these important stages of growth guide you to effective wild oat control! Wild oats are most vulnerable to Spencer Carbyne from the time the second leaf appears until the third leaf appears. Be ready when this crucial time arrives—it is your one opportunity to stamp out your 1961 wild oat problem with a single spraying.



To be positive that you select the proper time for Carbyne application, count the wild oat plants in each stage of growth—1-leaf, 2-leaf and 3-leaf. When the majority are in the 2-leaf stage, **APPLY CARBYNE!**

CONTINUED ON NEXT PAGE

# 5 MIX CARBYNE LIKE THIS FOR BEST RESULTS:

Apply 2½ to 3 pints of Carbyne per acre (3½ to 5 pints for sugar beets). Add water to make 4 Imperial gallons of spray solution. Use 45 pounds pressure and drive at a speed that will apply 4 gallons per acre.

# 6 USE THIS PROVEN APPLICATION GUIDE:

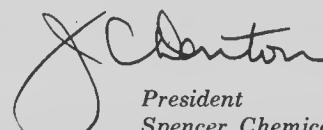
- Use only according to instructions on the Carbyne can.
- Keep your bypass hose below the level of the spray solution in your tank at all times.
- The effectiveness of Carbyne will be reduced when sprayed in winds of more than 15 miles per hour.
- Do not spray Carbyne when plants are wet with heavy dew or rain.
- Rain or dew *following* spray operations will not reduce the effectiveness of Carbyne.
- Apply Carbyne spray solution at the rate of 4 Imperial gallons per acre.
- Only one year's experience has been tabulated on the aerial application on Carbyne. We would recommend aerial application only if conditions are such that Carbyne cannot be applied with a ground applicator.
- Maintaining the proper constant speed on a pickup truck sprayer is difficult. To ensure best results, a tractor-driven sprayer is preferred.



**Just close the valve as you pass over areas that are free of wild oats.** Because Carbyne is a post-emergence herbicide, there is no need to spray the entire field. For maximum effectiveness, follow instructions carefully.

### REMEMBER

We believe Spencer Carbyne Wild Oat Herbicide is the most positive method of wild oat control yet devised. However, Carbyne is no substitute for adequate plant population, good cultivation practices, and a balanced fertilizer program. Used accurately *with* these sound management practices, Spencer Carbyne can help you realize the highest possible profits from your land.

  
President  
Spencer Chemical Company

*"For Victory Over Wild Oats,  
Spray Them With CARBYNE  
When They Are In  
The 2-Leaf Stage!"*



**SPENCER**  
Carbyne  
THE POST-EMERGENCE  
WILD OAT  
HERBICIDE

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## SOILS AND CROPS



A close-up of some Russian wild ryegrass plants showing the type of growth.

## Russian Wild Rye For Spring Seeding

by M. R. KILCHER

Swift Current Experimental Farm, Sask.

FARMERS who are planning to seed a field down to grass for pasture should seriously consider using Russian wild ryegrass. More than ever before, the right grass for the particular purpose in mind should be the main consideration in your crop choice. Successful farming is no longer the result of exploitation as it may have once been. Success and progress come mainly to those who can carefully keep down their costs, time their operations, maintain the fertility of their soils and choose the right crops. Farmers, to a large extent, have become quite alert and wise in their choice of varieties and types of small grains, wheat, barley, oats, flax, rapeseed, etc., but similar careful attention has not been given to their pasture and hay crops.

Often the proper choice of a crop is averted for very good reasons. Short seed supplies, marketing quotas, or high costs are common deterrents to the acceptance of some good crops. Thus, Russian wild ryegrass has for years been in the category of "too expensive" for most farmers. This is one of the necessary evils in the free-economy evolution of a product like Russian wild ryegrass. Now, however, this position is largely history and it is hoped that with the present good buying price of the crop, its acceptance will not have worn too thin.

Adequate supplies are now available at very moderate prices. Therefore a few highlights concerning Russian wild ryegrass would seem to be in order.

Adaptation. Its initial origin is southeast Siberia, Russia and central Asia. In Canada it does well on the loam and clay loam soils of the open prairies.

Use. It should be used for pasture only, since its spread-out basal leaves do not allow good mowing or rewarding yields.

Culture. Spring planting is usually better than fall seeding. It requires a firm clean seedbed and should be seeded about an inch deep. Rate of seeding is about 4 to 6 lb. per acre in rows spaced 12" to 18" apart. Use 4 lb. for the 18" spacings, and 6 for the 12" spacings.

Yield. As pasture it yields about the same as crested wheatgrass.

Feed Value. Much higher than most grasses, especially during mid-summer and fall when other grasses drop sharply in feeding value. More pounds of meat will come off an acre of Russian wild ryegrass than off an acre of other cultivated grass.

Palatability. Very acceptable to livestock. On free choice basis, stock will usually graze Russian wild ryegrass heavily and other grasses moderately or lightly.

Mixture. It is advisable to use Russian wild ryegrass in mixture with alfalfa as pasture for the same reason that other grass-legume mixtures are used. One pound of alfalfa seed per acre with Russian wild ryegrass will give higher pasture yield, delay sod binding and extend the productive age of the field.

Hardiness. A slow starter, but once established it is as drought tolerant and as winter hardy as crested wheatgrass.

Other Uses. Fair for farmyards, unwatered lawns, playgrounds, headlands, etc., as it keeps its green color better than other grasses and does not head out profusely when seeded solidly for cover purposes. ✓

### New Corn Hybrid

A NEW early corn hybrid developed by the Morden Experimental Farm, and known as Morden 88, is expected to increase field corn production in southern Manitoba.

Morden 88 is a flint-dent hybrid and has yielded well. About 300 bushels of seed is available from Manitoba dealers this year. ✓

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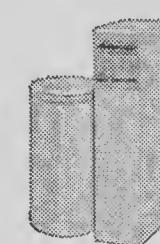
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## Science Now Shrinks Piles Without Pain or Discomfort

Finds Substance That Relieves Pain  
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Toronto, Ont. (Special)—For the first time science has found a new healing substance with the ability to shrink hemorrhoids and to relieve pain and itching. Thousands have been relieved with this inexpensive substance right in the privacy of their own home without any discomfort or inconvenience.

In case after case, while gently relieving pain actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne)—discovery of a famous scientific institute.

Now this new healing substance is offered in *suppository or ointment* form called *Preparation H*. Ask for it at all drug stores—money back guarantee.

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Please Mention The Guide.

## Grows Flax As Clean-Up Crop

"I can now grow flax as a clean-up crop on land heavily-infested with wild oats."

J. S. Crossman  
Rosetown, Sask.

Avadex kills wild oats as they germinate, knocks out competition from wild oats for precious sunlight, soil nutrients and moisture. Permits earlier seeding, earlier harvest. There's no critical application time. You harvest more, store crops dry, reap greater profits from cleaner fields.

**AVADEX\* WILD OAT KILLER**  
a farm product of Monsanto Canada Limited

\*trademark of Monsanto Chemical Co.



## SOILS AND CROPS

### Rotation To Fight Fungus

INCLUDE oats and legumes with summerfallow in the rotation to control fungus disease attacking the roots of wheat and barley. Dr. L. E. Tyner of the Canada Department of Agriculture's plant pathology laboratory at Edmonton, says it's true that oats and legumes are not so profitable as wheat. However, farmers who insist on growing cereals even when yields are reduced to the point where returns do not defray expenses, would do well to switch to oats.

Dr. Tyner considers it possible that returns from one good yield of wheat every 4 years, with other crops planted in between, might be higher than returns on two or three poor crops in the same period.

Seed treatment also helps to control fungus disease. V

### No Easy Grasshopper Control

THERE have been reports of parasites killing off grasshoppers in the United States, but don't depend on this happening on a significant scale here next spring, warns Roy McKenzie, director of Saskatchewan's plant industry branch.

The traditional way of controlling hatching grasshoppers on stubble is to remove all growth by early cultivation. When the young, wingless grasshoppers hatch, they cannot find anything to eat and they starve.

In recent years, chemical control has stopped several serious outbreaks before they started. Dieldrin, applied as spray or dust, has eliminated grasshopper of all ages. When bought in bulk under the Saskatchewan

ewan scheme, the cost to farmers has been reduced to 15 cents per acre to spray the chemical.

The word from Saskatchewan is still that good cultural control and a chemical campaign on a district basis will keep grasshoppers from destroying much of the crop. V

### Planting Weeds Doesn't Make Sense

**A**BOUT 18 million bushels of cereal seeds are used in Alberta every year, and as much as 25 per cent of the seed grades "reject," so about 4½ million bushels are planted with a weed count so high that they cannot meet the lenient standards of the lowest official grade.

O. G. Bratvold, supervisor of crop improvement in Alberta, uses these figures to underline the fact that one of the first steps in weed control should be to stop planting weeds.

Mr. Bratvold points out that there are more than 50 good seed cleaning plants in the province whose average charge for cleaning is about 6 cents per bushel. Farmers can sow an acre with clean seed at a cost of less than 20 cents. Compared with the cost of spraying, cultivating, etc., this is very economical weed control. V

### Seed Price Recommendations

**A**FTER considering the seed situation and prices for commercial feeds, the Ontario Soil and Crop Improvement Association recommends the following minimum prices per bushel for 1961 seeding:

Oats—registered No. 1 grade, \$1.75; certified No. 1, \$1.65; commercial No. 1, \$1.50.

Barley—registered No. 1, \$2.35; certified No. 1, \$2.20; commercial No. 1, \$1.90.

These prices are for treated seed in new bags at the producer's farm, F.O.B. shipping point. V

### Oats-Barley Mixture

**I**F you're seeding an oats-barley mixture this spring, the Ontario Department of Agriculture recommends that you consult your agricultural representative for the best proportion of oats to barley for maximum yields in your county. Each year, tests are conducted throughout Ontario to find the best oats-barley combinations. V

### Why Legumes Are Recommended

**M**ORE yield, better yield and more years of production will be the three main advantages if 1 or 2 lb. of alfalfa seed per acre is added to grass seeding. In fact, the result in a hay or pasture crop will be twice as good as the grass alone, according to M. R. Kilcher of the Swift Current Experimental Farm.

Tests at Swift Current have shown that grass alone on dry land will yield about ½ ton of feed per year as pasture, and a little more as hay. Grass with alfalfa will yield an average of 1 ton per acre. From the feed angle, a legume-grass mixture is much superior to grass alone, especially for hays and midsummer to late season grazing.

In long-term trials, hay and pasture have continued to produce well for 10 to 15 years when alfalfa is included. Grass alone does not produce large yields after about 4 years, on account of sod-binding.

Two pounds of alfalfa seed per acre for a hay field is an adequate and optimum amount. One pound of alfalfa is safe for a pasture. V

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Whether you've got problems with seedbed preparation or cultivation, the Farmhand-Melroe Harroweeder is the answer. It does both jobs for you—does them faster, better, more profitably.

### Gives Crops a Head Start

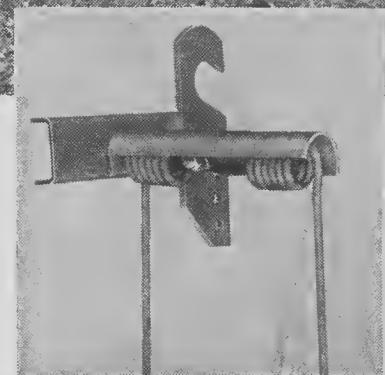
Seedbed preparation with the Harroweeder gives your crops a profitable head start. The exclusive "vibracoil" action of its 11" coil spring teeth breaks up every inch of soil—works out air pockets—levels out ridges and ruts. The soil is firmed and mulched enough to retain moisture. Assures you of fast, even germination of seed and thorough pre-emergence weed control.

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You can easily cultivate up to 200 acres a day with the Harroweeder—no other implement can touch it for speed. You can get at weeds faster and more often. With a Harroweeder you get all the weeds, even those in the row. The vibrating teeth work around crop stems to comb out every weed. There's no ridging along the rows—your fields are level and clean for easy harvesting.



The Farmhand Harroweeder will fit any crop, any row spacing. Models range in width from 15' to 55'. Sections rack on drawbar which folds to 7' for easy transport. Hydraulic drawbar models available.



### Increases Your Profit

Better seedbed preparation and cultivation increases your yield and profit per acre. The Harroweeder also reduces your implement investment by doing the jobs of a drag harrow, rotary hoe and cultivator.

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### Low-Priced 110" Spreader

This is a PTO-Spreader with 110 bu. capacity. Has steel sides with  $\frac{5}{8}$ " marine plywood floor. 2-speed worm gear drive controlled from tractor. Beater shuts off with apron running for easy cleanout. Full length beater shaft for dependable, smooth operation . . . no stub shaft.



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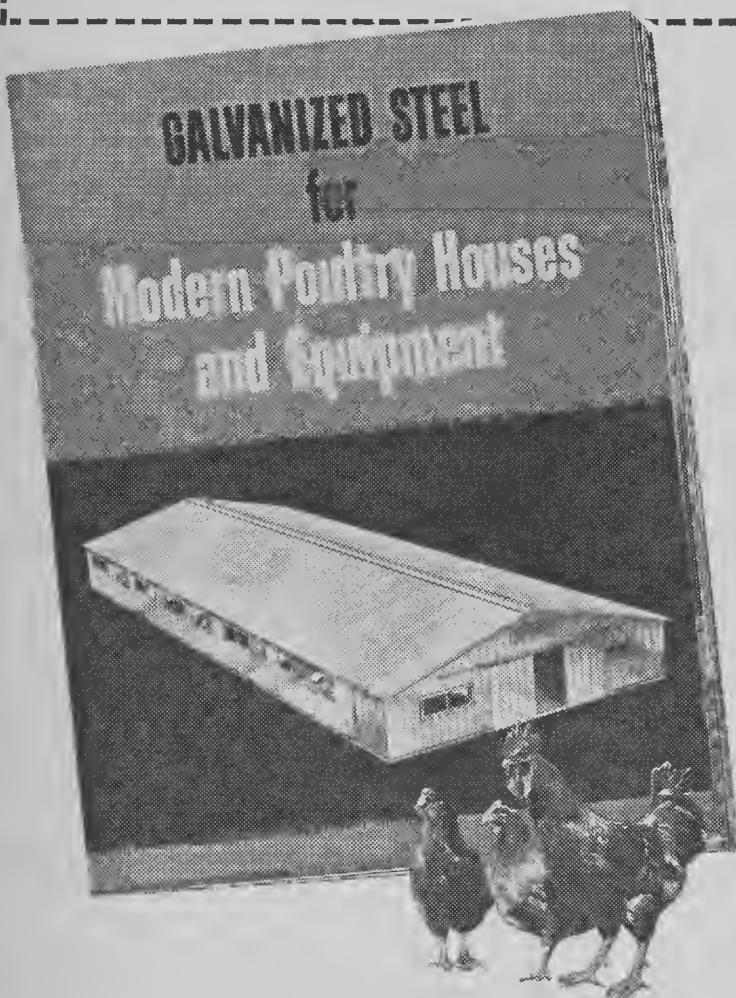
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# POULTRY

## This Flock of 10,500 Is a One-Man Operation

*Labor-saving poultry house and centralized egg washing at the co-op make it possible*

HERE is real labor efficiency: one man looks after 10,500 hens himself, including 7,500 in a new three-storey barn, on the Howard Fuller farm.

Fuller is a poultryman and vegetable grower at Grand Pre, N.S. In January, 1960, he had the devastating experience of watching his poultry house, which he was remodeling, burn to the ground. He lost 3,600 seven-week-old pullets in the fire, in addition to the building. But within 6 weeks, he was busy rebuilding.

He put up a three-storey structure, 125 feet long and 42 feet wide, and in it he now handles 7,500 laying hens.

It's a simple type of building, designed to keep labor to a minimum. For instance, the center of each pen consists of an open area where deep litter builds up. Dropping pits along each side enable him to crowd more birds into each pen. Banks of individual homemade nests, set back-to-back, are spaced through the building.

Labor has been just about eliminated from the job of feeding the birds. A hopper was built into one end of the building, and bulk feed is blown directly into it. From there, it is gravity-fed into the mechanical feeders on each floor.

The elevator is another labor-saving feature. Fuller built this himself to carry eggs down from the upper floors. In cases of emergency, he can use it to lift a few bags of feed to upper floors as well. The elevator is powered by a "Budget" hoist made in the United States. Of course, no one rides on this piece of equipment. It is just for carrying produce.



Guide photos  
Homemade elevator takes up empty crates, delivers eggs to main floor.

Fuller ships his eggs to the ACA co-operative and this enabled him to shuck off another high-labor job recently. The co-op installed a huge washer, and took over the job of washing all eggs delivered to it. Purpose of this move was to see that the job was done carefully, enabling the co-op to assure customers of consistently high quality eggs. This means Fuller doesn't wash his eggs at all now. He gathers them in plastic trays and ships them right to the co-op.—D.R.B. ✓

## Stress Increases The Broiler's Load

A SINGLE stress factor can result in poor growth and feed efficiency among broilers. A combination of stresses may produce mortality or culls. The B.C. Department of Agri-



Three-storey house for 7,500 birds has ventilation outlets, and roof is insulated with shavings. Bulk feed is delivered to a hopper at the far end.

## POULTRY

culture's poultry branch has listed some of the common stresses, as follows:

- Too many chicks per brooder.
- Too little floor space.
- Insufficient feed and water space.
- Faulty ventilation.
- Poor sanitation.
- Disease outbreaks.
- Sudden changes in weather.
- Sudden changes in management methods.
- Improper debeaking.

The more stress factors you introduce through your management, the greater the load your broilers must carry. When the load is too heavy for the birds to carry, it's high time you checked your management. If you run into a problem, have a qualified person make a diagnosis before blaming feed or chicks. V

## How Many Poult's, and When

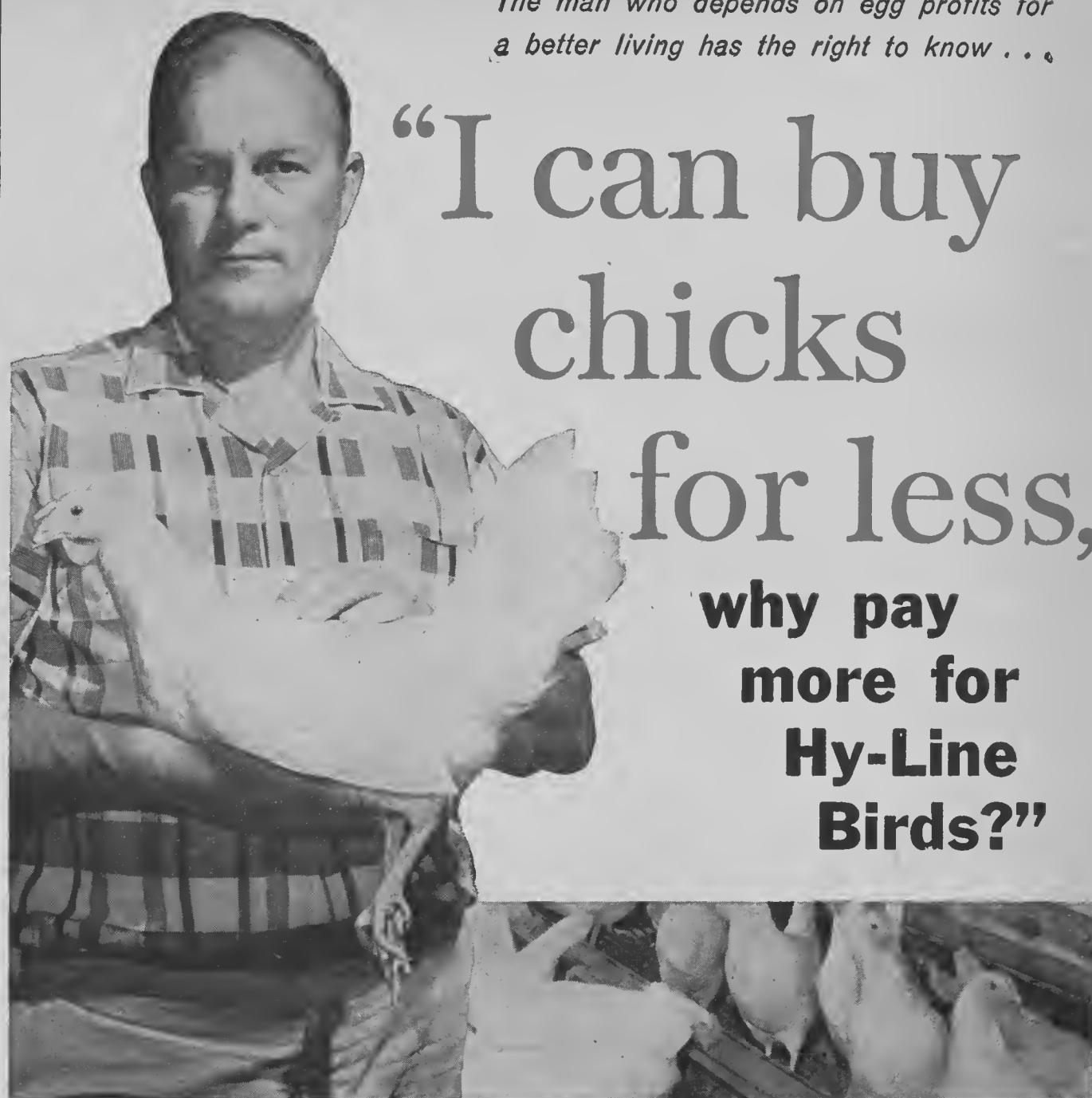
WITH turkey poult time here again, R. M. Blakely of the Swift Current Experimental Farm, Sask., has some useful thoughts to offer on the number of poult's to order and the date on which they should arrive.

In Mr. Blakely's opinion, the reasonably good returns for the 1960 turkey crop could result in a considerable expansion this year. But overexpansion in such conditions leads our turkey industry into difficulties. This happened in 1959, when more turkeys were produced than the consumer market could readily absorb. The result was depressed prices.

Stability in the turkey industry can be attained only by reasonable consistency from year to year in the number of turkeys reared, he says. During years of overexpansion, the tendency is for too many people to expand beyond the ability of their facilities to handle the birds properly. The result is generally a higher mortality rate, poorer growth rate and poorer finish, together with depressed prices. It is a serious error at any time to order more poult's than can be handled properly by the facilities available. This applies not only to brooding space and equipment, but to range-rearing facilities, and to fall and early winter shelters.

As to the date on which poult's should arrive, this will depend on the date you expect to market them. Generally, it takes 26 to 27 weeks from date of hatch for the average well-managed flock to be ready for market. Once the market date has been selected, a little calculation will set the arrival date.

Finally, Mr. Blakely says that statistics show there was an increase in turkey production of about 17 per cent between 1958 and 1959, but a reduction by an almost equal amount between 1959 and 1960. These fluctuations tend to produce a pattern of depressed prices one year and somewhat firmer prices the next year. There would be more stability if production could be smoothed out from year to year. V



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## HORTICULTURE



[Guide photos]

*Jim Koffski and his two sons lean up against eaves of potato storage, which is built into a hillside and insulated with banks of wood shavings and dirt.*

## Switching from Grain to Vegetables

"I WOULD have folded up as a farmer about 3 or 4 years ago if I'd continued to grow just grain," says Jim Koffski. "But I discovered that a lot of the land around Nipawin is better garden land than it is farm land, so I've been developing along those lines."

Jim bought a quarter-section on the edge of this northeastern Saskatchewan town with the assistance of a VLA grant. He helps his father work five quarter-sections whenever he has time, and also operates a small seed-cleaning plant.

About 80 per cent of Jim's time is taken up by the potato business these days. He grows a little over 60 acres of Netted Gems and goes out and sells about 300 tons of them on a year-round basis. Most of them are sold at Prince Albert and Saskatoon, but he takes a load of potatoes round on a regular route until he has disposed of them. "I'll sell one potato, a bag or a whole truck load to anyone who's willing to buy," he says. "I'm getting to be known in the places I visit, but I've had to work away at it constantly to build up my own market. It's one thing to grow a crop, but you have to be a salesman these days, too."

The main potato crop is grown on his father's lighter land, but on his

own quarter Jim has a small plot of early potatoes. There is also about 65 acres in a combination crop of barley, sweet clover and brome. He harvests the barley in the first season, sweet clover seed in the second, and brome seed in the third year, and perhaps in 3 or 4 succeeding years if the yield holds up.

The seed cleaning plant is for custom work on clovers and timothy, as well as his own forage and grain seed. There is also red clover, timothy, crested wheat and fescue seed from his father's land. All this helps to keep him busy through the winter, while his potato round still continues.

Jim Koffski built his own potato storage, set in a hillside and protected up to the eaves with wood shavings and dirt. This insulation keeps a good storage temperature of 36° in winter, and in summer a refrigeration unit holds it down to that mark. The potato business is fully mechanized, with a harvester and self-unloading boxes which dump the crop right into the bins. He will be adding a washing and grading system soon.

Jim is swinging his quarter more and more into market gardening in a region where this is by no means traditional. He has grown sweet corn and cucumbers, and recently tried an acre of carrots, which turned out well. There's a market ready and waiting for them. He has been growing turnips too.

"I wouldn't say we're a howling success yet," says Jim, "but at least we're not starving and it looks as if we're headed in the right direction. I think this is the only spot in Saskatchewan where such fine Netted Gems can be grown. In fact, wholesalers are telling me they're as good as any in Canada."—R.C. v



*Seed cleaning plant helps to provide a year-round living for Jim Koffski.*



## Up to 2 tons more pull with new Oliver 1800

Official figures are in—and here's a record-breaker in drawbar pull. In nationally recognized tests this 1800 diesel outpulled the nearest competitor in its horsepower class by more than 4000 pounds. It walked away with 11,000-plus, exceeded only by another Oliver Wheatland of the general-purpose type—the big 1900 diesel, a power leader in a class by itself.

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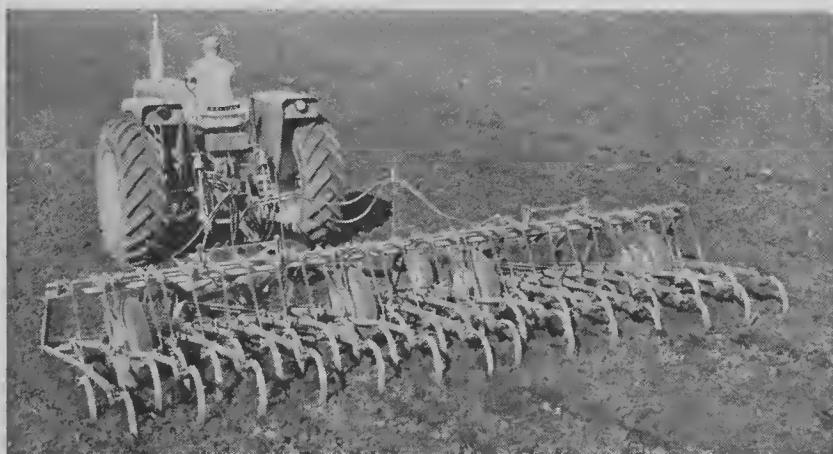
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## HORTICULTURE

## How Does Your Garden Grow?

by PROF. PAUL J. ZWERMAN, Cornell University

THE story begins with the dying foliage of the trees and bushes.

The garden, which only two months ago was bearing fruits and vegetables, appears to be barren of all plant life. However, on the dried stalks lie the seeds of next year's plant growth. Thousands of tiny embryo plants nestle in the hearts of the seeds.

Soon these seeds fall from the stalks to the soil, or will be harvested by man and stored for next year's plantings. During the following 6 months they will show no sign of life. But in the spring when the temperature and moisture content of the soil are right, water will seep into the seed which was newly planted, or left in the ground from

last year, and cause it to swell and burst.

Enzymes in the seed will bring about a digestive action of the stored food and cause the young plant to grow. This digestive action is very similar to that which occurs in the mouth and stomach of man. The enzymes secreted by the body attack the food that is ingested and convert it into simple chemical units, which can be used for man's growth and prolongation of life. Similarly the enzymes of the small plant attack the stored food and convert it into sugar which the plant uses for growth. The small plant grows on the stored food until it reaches the soil surface.

At this time, one of the most amazing processes in nature occurs. The small plant bursts through the surface and on its stem cling tiny green leaves. These leaves are colored green by chlorophyll, the substance now familiar to everyone because of its use in commercial products. This plant is one of millions of such plants which produce all the food that all living things consume. The process for producing this food is known as photosynthesis — one of the greatest puzzles of science. For this small plant, using only water, carbon dioxide, a few mineral salts, chlorophyll, and the energy from the sun, can produce directly or indirectly every type of nutrient known to man: proteins, amino acids, starches, sugars, vitamins, fats, enzymes, organic acids, and many others.

These plants can survive under a wide range of conditions because they are automatically self-regulating. This regulation is brought about by the growing tip of the plant that exists both above and below the surface of the earth. The

growing tip forms new cells which divide and expand by taking up water as they did when they were seeds. They expand until they become an integral part of the plant. During drought the root system will grow proportionally more than the top of the plant as it goes deeper into the ground in its quest for water.

As the plant continues to grow the process of reproduction occurs. The flower of the plant appears, containing the reproductive parts. The pollen or sperm of the plant develops on the anther and is carried or falls to the stigma. From there it grows down into the ovary and fertilizes the egg to form the embryonic young plant. This is the beginning of seed formation.

THE embryonic young plant now grows through cell division and develops within the parent plant. Each seed not only contains the tiny new plant but also a special structure for storing food — the endosperm. Perennial plants such as trees and shrubs may produce many crops of seeds from one plant. Eventually, however, the individual perennial plant must die and be replaced by a plant coming from seed. In the case of annual plants, the food storage and growth of the young embryo plant utilizes all of the capacity and energy of the parent plant. As the life cycle of the annual plant approaches maturity its own growth seems to cease. The seed continues to grow and ripen on the stock above or below the ground.

Man uses a range of parts of a wide variety of plants to meet his economic needs. When a house is built of lumber — stems are being utilized. Asparagus eaters may not realize that they are consuming growing tips above the ground. Similarly those who eat beets or carrots are eating growing tips below the ground. Frequently seeds are the food of man: such as, peas, wheat, beans, etc. All these foods will grace your table and sustain your own life cycle. The rest will be blown by the wind, planted in the fall, or stored for next spring planting.

As you look out your window at the barren fields and garden, and you feel the chill of winter, remember that spring and the rebirth of plant life cling to the dried stems or lie safely buried in the ground. ✓



## SUCCESS

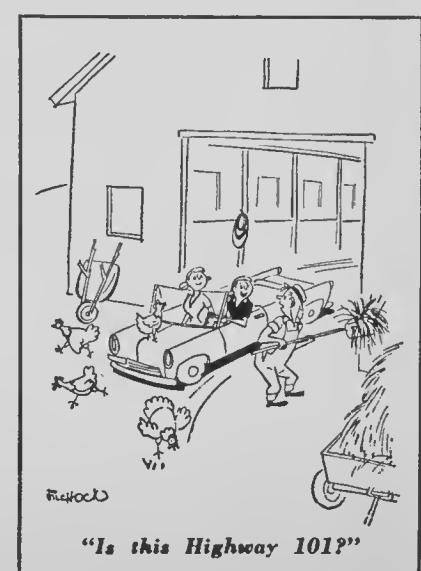
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## HORTICULTURE

**Certified  
Strawberry Stock**

ONTARIO strawberry growers will be able this spring to buy Ontario-grown strawberry plants grown according to the province's strawberry certification program. The regulation is designed primarily to keep virus infection to a minimum. But it also sets out tolerances for nematodes, cyclamen mites, red stele, June yellows, winter injury, and black root.

Experiments at Vineland and other stations in Canada and the United States have shown the reliability of performance of certified plants, as compared with plants produced without precautions to control the spread of virus.

Don't plant certified stock close to uncertified stock, because the strawberry virus is spread by aphids which are found in Ontario plantings.

Limited quantities of certified plants will be available this spring in the following varieties: Catskill, Cavalier, Earlidawn, Empire, Grenadier, Guardsman, Midland, Pocahontas, Premier (U.S.L.A.), Redcoat, Redglow and Sparkle. Look for certification tag on each package. V

**Watering  
House Plants**

IF you want to know whether a house plant needs water, tap the pot. A dry pot gives a clear, ringing sound, a wet pot gives a dull note, according to horticulturists of the Ontario Department of Agriculture. They also suggest these watering tips:

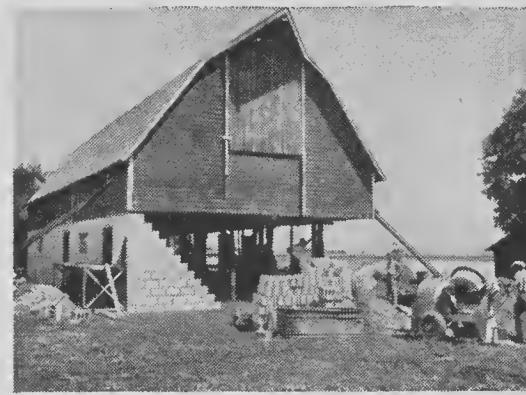
- Add enough water to wet the soil to the bottom of the pot. If a plant is growing rapidly, it may need water every day, especially in sunlight. Plants in cool, darker positions may need water only once a week.
- Water plants early in the day, so they are not saturated overnight.
- Placing the pot in a pan of water is all right if harmful crystal deposits on the soil surface are avoided by watering from above every 2 weeks. Remove the pot from the pan of water when the top of the soil is moist.
- Don't use cold tap water—it harms some plants. And don't use water treated with sodium softeners, because sodium may be toxic. Use rain water or melted snow.
- Too much water is as bad as not enough. V

**Want a Recount?**

W. L. PUTNAM, an ecologist with the Canada Department of Agriculture, counted 50,298 leaves on a peach tree at St. Catherines, Ont. From this he deduced that a mature peach tree may harbor more than 5 million European red mites at one time, on the basis of 100 mites per leaf. The European red mite is one of the most serious pests of fruit trees in Canada. V



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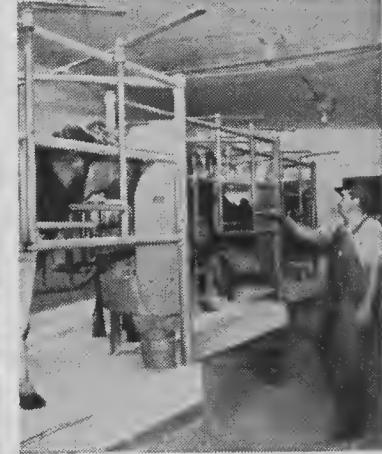
POULTRY HOUSE



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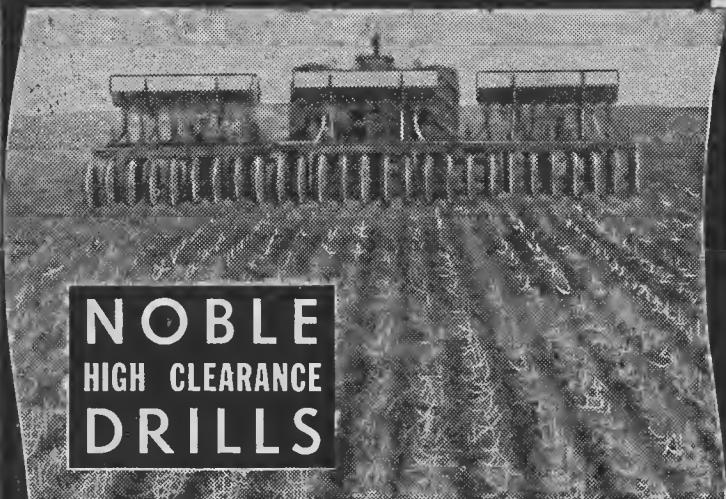
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**FARM MECHANICS**

## Rock Picker with Hand, Wrist and Arm

"I KNOW from long experience what it's like to pick rocks, and I know the awkward positions they can lie in, so I think I ought to know what's needed to move them," says Paul Jacobs of Sylvania, Sask.



Mechanical "hand" digs under rock



... a "wrist" movement picks it up



... "arm" of machine elevates rock



... and slides it down to the bucket.

He pondered the problem mostly while he was sitting on a tractor doing his field work. Then he came up with the answer, which he calls the "Jacobs Stone Digger and Picker."

The device is side-mounted on a light tractor. It consists of a fork which is raised and lowered like a hand on a wrist. This digs under the rocks, raises them from the dirt and slides them down an arm into a rear-mounted bucket. The side mounting enables the operator to see exactly what he's doing, and the controls are right in front of the tractor seat.

There are three hydraulic cylinders. One raises and lowers the "hand" on the hinged "wrist," a second elevates it on the armlike chute, and the third controls the bucket for dumping.

This implement can dig down, raise, and dump from the bucket a stone of any size from a baseball to 500 lb. It can also dig under and pick up an 800 to 900 lb. rock, as Paul demonstrated, and carry it off the field. The bucket, when fully loaded, can carry as much as 1½ tons of assorted rocks and dump them with ease.

Normally, the digger and picker stays on the tractor while it is doing other jobs. But the equipment can be unmounted if necessary, or just the bucket can be removed.

Paul made the whole machine in his farm workshop, except for the cylinders, pumps and controls. He reckons it would retail for \$1,000. He has been using one regularly for the past 3 years, and built a second model which went to a neighbor.

"I'm so sure I'm right about this thing," says Paul Jacobs, "that I predict that all rock pickers will be built on this principle in a few years from now. It's very maneuverable, and it has the special fork operating like a hand to dig under partially submerged rocks." —R.C. V

## Keep Tires On the Job

**A** SIDE from keeping the correct inflation pressures, here are two ways to increase the life of a tractor tire:

- Protect the tire from grease and oil, which are destructive to rubber. Don't park where tires will come into contact with oil or petroleum products. Oiled surfaces should be avoided for parking, too.

- Pay prompt attention to tire injury. Remove a seriously damaged tire from the wheel immediately, and send it to a reputable tractor tire service station or repair shop, where a permanent repair can be made.

Care in the inflation and maintenance of farm tires pays off in longer and better service. V

## Hay Conditioning

**R**EPORTING on crimpers and crushers for hay conditioning, Saskatchewan's Agricultural Machinery Administration says their data showed that the significant advantage of conditioning hay by either method is the reduced curing time. The data did not support the contention that loss of hay is reduced because crushed stems cure at the same time as the leaves.

**Animal feeding response:** There was no advantage with sheep as to gain in weight with either crimped or crushed hay. There appeared to be no difference in the amount of hay refused by the animal, according to research at the University of California.

**Loss of hay** is slightly greater with conditioned hay, says AMA. The advantage of decreasing curing time to stems in relation to leaves was not apparent. This may have been due to raking and baling hay at night, or early in the morning, when hay was tough. Crimpers lost slightly more than crushers. The amount lost by crushers was dependent on roll pressure.

**Feeding (nutrient) value:** Conditioned hay had a higher carotene content at time of baling, but there was no difference after 4 months' storage. There was no rainfall during the curing period, so its effect on nutrient content was not evaluated.

**Drying rate:** There is little difference between crimping and crushing, but a significant difference between conditioned and unconditioned hay. Some of the advantage of the higher rate of drying for conditioned hay is lost by greater pickup of moisture at night.

If 20 per cent is the desired moisture content for baling (depending on storage conditions, type of crops, etc.) conditioned hay was ready 1½ days after mowing, but unconditioned hay required 4 days. This would reduce significantly the hazard of weather damage in Saskatchewan, which can cause up to 50 per cent loss of nutrient value of hay, says AMA. V

## Don't Always Blame Air Cleaner

**T**HE air cleaner is often at fault when an excessive amount of dirt enters the tractor engine. But worn choke and throttle shafts in the carburetor may also cause this condition.

When new, the shafts fit snugly into bearing surfaces, preventing any dirt from being drawn into the carburetor. However, after the tractor has operated for some time, the shafts may wear to the point that there's a sloppy fit between shaft and bearing. High manifold vacuum can suck dirt directly into the carburetor through the opening, say Champion Spark Plug Co. engineers.

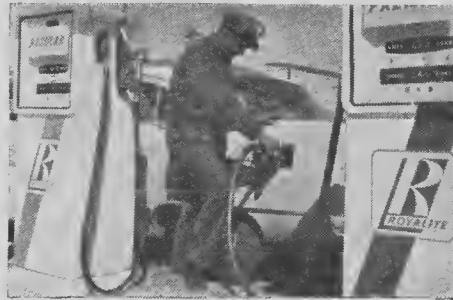
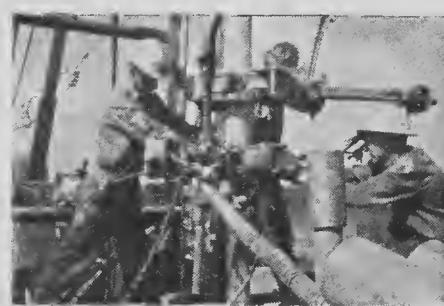
Examine throttle and choke shafts frequently for excessive wear. V

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## Beating the Blizzard



One of three buildings that house the turkeys. Single-skin, plywood roof, with horizontal joints lapped, and all joints caulked, is clearly visible.

*Frank Kowal has used plywood extensively*

*in reorganizing his turkey farm*

**A**BOUT a year ago, The Country Guide published the story of Frank Kowal, who grew mushrooms and also raised turkeys on open range at Killarney, Man. It was a success story except for two recent setbacks, when early blizzards killed off 1,400 of his turkeys in 1958, and 9,500 of them in 1959. Here is the sequel.

For some time, Frank had been considering more adequate housing for his birds. The disasters showed him that the question was no longer whether he could afford proper buildings. He couldn't afford to be without them, if he was to continue raising turkeys. So he decided on three large pole shelters, which would keep his building labor and material costs to a minimum. At the same time, he would switch to bulk feed.

The buildings, each 40 ft. wide by 150 ft. long, were erected using old cedar telephone poles set in concrete and covered with  $\frac{3}{8}$ " fir plywood sheathing on lumber framing. A single-skin plywood roof was used for economy. Properly applied, with the joints caulked, it is giving good service and in later years may be covered with roll roofing or shingles to ensure that it remains weather tight. Frank can sleep easier at night knowing his turkeys are under cover.

These three buildings accommodate over 10,000 full-grown turkeys. Self-feeders run the full length of the buildings on both sides of the center access alleys. Automatic waterers are strategically located.

With this present system, the turkeys are marketed in September and October. But Frank is considering winter production as well, and if this develops, one or more of these buildings will be insulated, or a large new building will be erected.

**T**HE second major change in his operation was the switch to commercial bulk feed for his flocks. In previous years Frank had bought grain to process and mix his own feed. He changed to bulk feed to obtain a better balanced ration and to lower his feed handling costs.

Suitable storage is essential if labor costs are to be reduced. Frank needed central storage from which feed could readily be drawn to service the many self-feeders in the three buildings. An overhead storage bin of fir plywood supported on pressure treated poles, which was shown at the Brandon Exhibition, seemed to be the answer. This bulk feed bin was so designed that a truck or feed cart can drive underneath for filling.

The bin at Brandon was lifted from its cable-sling supporting system and lowered onto a semi-trailer for transport to Killarney. The poles were pulled and reset at the farm. In less than 2 days, the move had been made and the bin was ready for filling.

Feed is purchased from Federated Co-operatives and is delivered by bulk truck from Winnipeg in 12-ton loads. The truck is equipped with a pneumatic unloader which blows the feed into the bin in only a few minutes. As the turkeys reach ma-



Feed cart is filled from open slide gates in base of overhead bulk bin.

turity they are fed 20 per cent grower concentrate pellet. Approximately 26 tons of feed a week are required. This could mean a lot of shoveling without proper storage and handling facilities.

From the bin the feed is run into a tractor-pulled feed cart for moving to the self-feeders. The cart is filled from the bin by gravity and unloaded into the feeders with a power-take-off unloader as the tractor travels along the rows. Thus the entire feed handling operation from the feed plant in Winnipeg to the self-feeders is made possible with a minimum of time and effort.

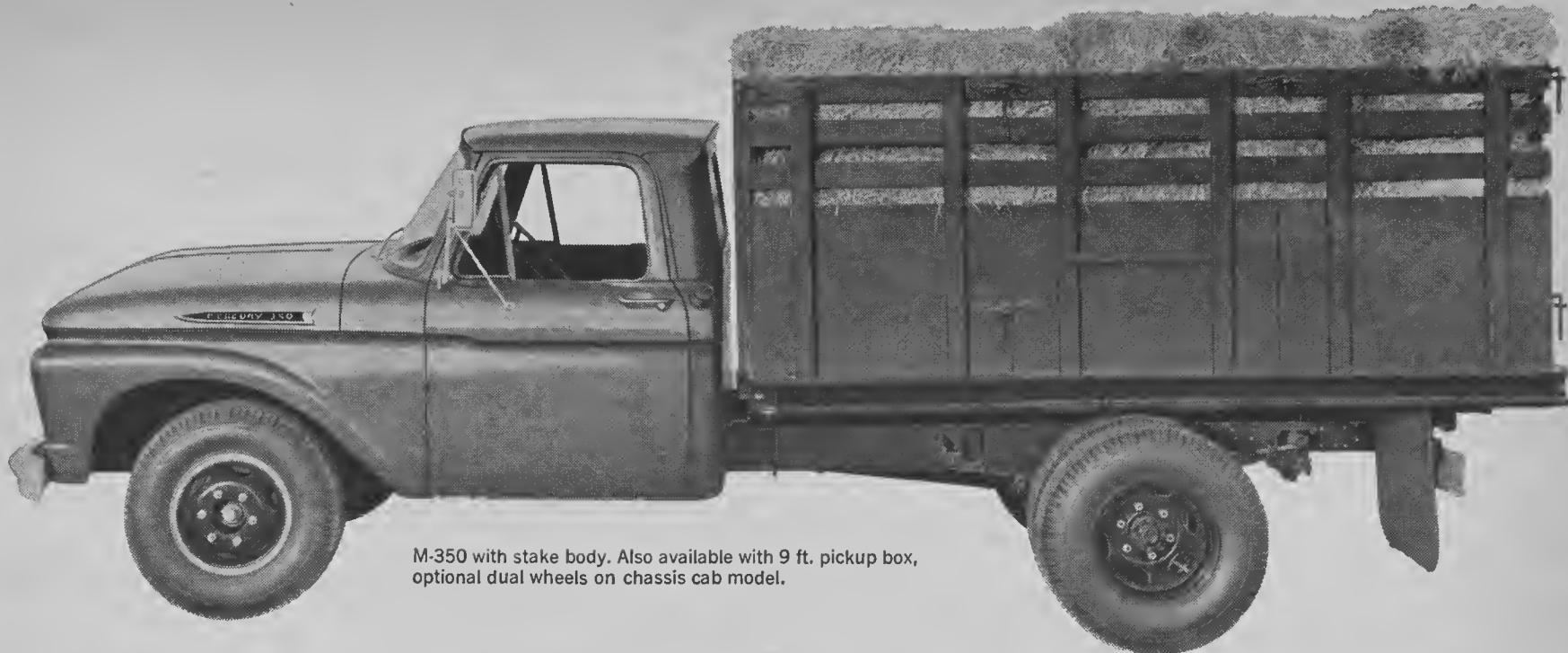
In farming today the provision of the most economical housing and shelter suited to each farmer's special needs, and reorganization of the enterprise to increase labor efficiency are essential to counter the high cost of buildings and labor. With these pole frame turkey shelters and the new overhead feed storage, combined with bulk feed purchasing, Frank Kowal has taken a long step in the right direction.



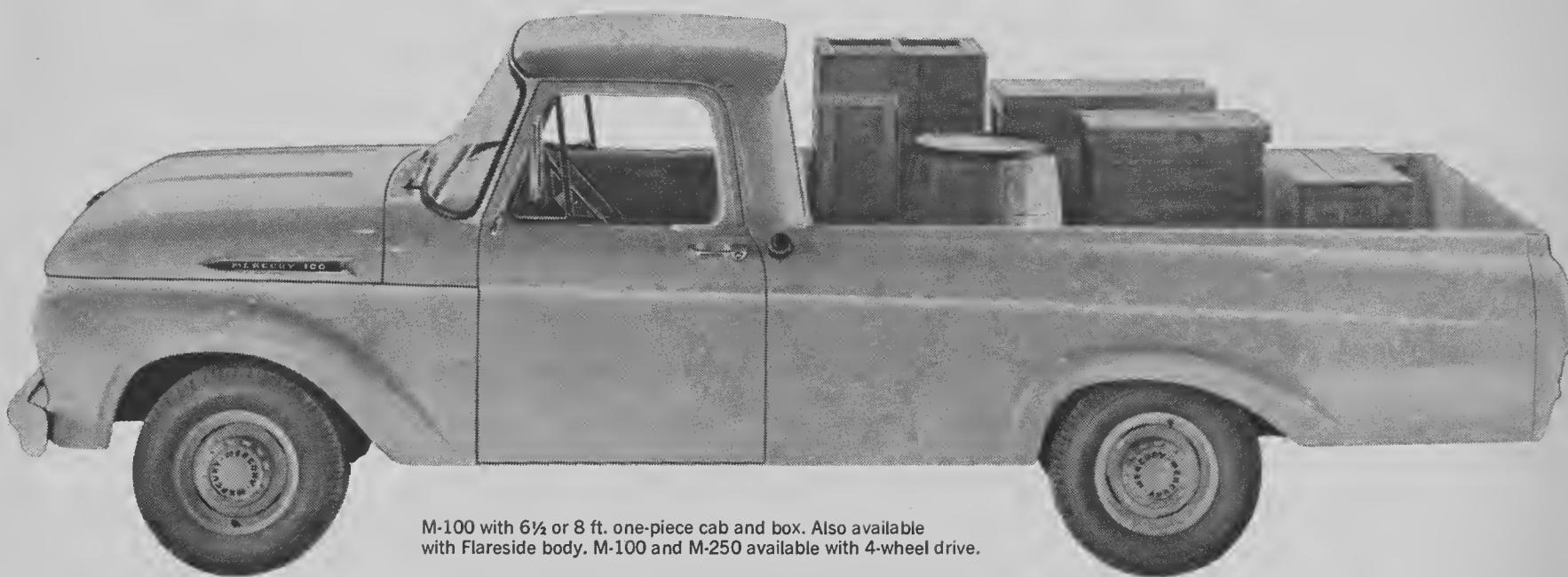
The sides of buildings are open for maximum ventilation. Wire mesh keeps birds enclosed. Panels can be nailed quickly over the screen, if desired.

## Mortar Mix

**T**O mix mortar, place about 75 per cent of water in mixer; add half the volume of sand; add a bag of mortar mix; add remainder of sand; add water as required for plasticity; operate mixer for 4 minutes, and dump.



M-350 with stake body. Also available with 9 ft. pickup box, optional dual wheels on chassis cab model.



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# I WAS JUST FIGURING...

—by C. Watkins

RIGHT ABOUT NOW is when farm animals are most likely to suffer from malnutrition due to vitamin deficiency. The animal's own vitamin reserves are apt to be depleted, and much of the vitamin content of stored feeds will have been destroyed by oxidation. So let's talk about the importance of supplementary vitamin fortification.

**Everybody knows animals need vitamins to function properly . . . and if they don't get them, there's trouble. If the shortage is not too severe, they'll just be poor-doers . . . not sick, but not well. Production may suffer, feed efficiency drops and they fall easy victims to other diseases. If the vitamin shortage is severe, they'll suffer from clear nutritional disease.**

The disease side of vitamin deficiency is the easiest to see, and it's what most farmers were concerned with. But I figure the really important consideration is the economic losses that occur when the deficiency isn't bad enough to produce disease symptoms . . . the feed waste, poor production, etc. This is where the vitamin problem really costs you money and may even cost you your profits.

Unfortunately, there are still a few people who (in spite of the evidence) believe that animals can get enough vitamins out of "natural" sources to get along. And I will agree that it's possible. But before you decide to rely on natural sources instead of vitamin fortification, let me point out two things. First. Today's high-producing livestock require substantially more vitamins. Second. The critical fat-soluble vitamins "A," "D," "E" and "K" oxidize rapidly in storage . . . and often in an unpredictable fashion.

**For example, I read a test report recently where they assayed samples of sun-cured hay from the SAME field, cured and stored under the SAME conditions. Those assays showed a 24-fold variation in Vitamin "A" content. The best sample had 24 times as much "A" as the worst!**

So when you have such unpredictable vitamin levels under practical conditions, I figure it's just plain penny-wise-pound-foolish if you don't **make sure** your animals get the vitamins they need for economic production and good health . . . by fortifying your rations according to Watkins recommendations with Watkins vitamins.

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## FARM BUILDINGS

### Adjustable Feed Bunk for Cattle



[Guide photo]

HERE is an easy-to-make feed bunk that many stockmen might find a useful addition to their feedlot. It features a hinged cover on one side which can be fastened in either the open or closed position as desired. When the cover is up (see picture), animals can feed from both sides; when down, it serves as a windbreak so chopped feed won't scatter on gusty days. Manure won't accumulate in this trough, and cattle won't walk over it. This was photographed at the Jake Wambeke ranch, High River, Alta. V

### A Wheel on the Table



Mealtimes at Rio Alto. Plenty of room for eight and no need to pass food.

by BERT SMITH

THIS round type of table, quite common in the ranching country of Alberta, seats eight people comfortably at the Rio Alto Ranch, Longview. This is more than an average square or oblong table of similar area would accommodate without crowding. A special feature of the table in the illustration is the "Lazy Susan" built onto the center of it. It revolves and allows each person to serve himself without needing to ask for the food to be passed.

The revolving section is made of a wagon wheel covered with veneer or beaver board, and then linoleum. The hub of the wheel passes down through the center of the table and rests on a steel plate, which is secured by strong wooden brackets bolted to the frame of the table.

The table top is 5' 6" in diameter, and the "Lazy Susan 3' 8". Both are rimmed with aluminum strips, and the "Lazy Susan" has brands painted on the rim of the wheel. V

### Screens Shouldn't Hinder the Water

WELL screens come in many sizes and have a selection of openings to separate a large range of sand particles from water. R. E. Melvin of the Swift Current Experimental Farm, Sask., says there are two important features to consider:

- The larger the screen diameter, the greater is the surface area, permitting more water to enter the well.
- The larger the screen opening, the greater will be the amount of water that is permitted to enter the well.

These two factors usually govern the shape and size of the well screen. In general, use the largest diameter screen that will fit in the casing, and use the largest screen opening consistent with the sizes of sand particles in the water-bearing formation. It is an advantage to allow fine particles to enter the well through the screen, and to remove them from there. This results in a more porous formation and will permit water to enter the well more easily.

Sand points are designed for driving into a sand formation, and should be used only in that way. They are constructed with much of the surface area taken up by metal, which reduces the surface area and thus the capacity. Sand points are not designed to prevent clog, as are well screens. Points should be used only in places where they can be removed for cleaning or relocating without increasing the cost too greatly.

Perforated pipe casing should be avoided if possible. This will not hold sand out of a well. In low yield formations it is much better to use a long well screen, preferably with a gravel pack treatment, rather than perforate the casing. If the casing has closed off a water-bearing formation, the recommended method is to withdraw the casing so that water can enter the well. V

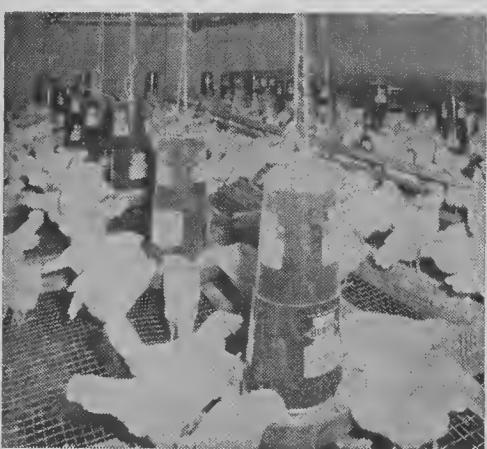
### Feedlot Windbreak



SOME feedlot operators are finding that a Z-shaped board fence inside the feedlot is just as effective a windbreak, and much less costly, than a board fence built all around. Cattle can easily make their way to a sheltered spot whatever the direction of the wind. V



### Mobile Hanging Feeders



An overhead track carries these hanging feeders past a central feeding station. Features include non-rocking trolleys with tandem ball-bearing wheels, and 1/6 h.p. electric motor, which is turned on only when feeders need filling. Feeding station has pressure switch control for auger, and rubber delivery hose. System leaves poultry house uncluttered. (H. D. Hudson Manufacturing Co.)

(323) ✓

### Long-Reach Elevator



Truck design of this all-purpose elevator permits more overhang at any elevation. It comes in 6 lengths from 26 ft. to 51 ft., and is balanced for one-man placement. Winch raises or lowers the elevator. The 20½ in. trough has close-spaced, cupped flights for high capacity at steep angles. (New Idea Co.)

(324) ✓

### Twelve-Ton Spreader



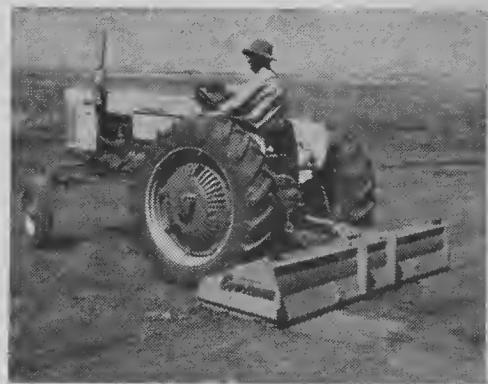
Heavily built and designed to make long hauls practical, the 12-ton manure spreader has a rated capacity of 490 bushels. The box is 13½ ft. long, 7 ft. wide and 2 ft. high, and it can be converted quickly for general hauling. It has a 3/16 in. steel frame, side angles face out to avoid freezing of apron chain. Floor is ¾ in. treated plywood, and sides are 16-gauge aluminized steel. Controls are within reach of the truck cab. (The Farmhand Co.)

(325) ✓

### Mounted Land Smoother

Here's a land smoother for all three-point hitch tractors. For short-haul moving in loose soil, the bucket may be used with the rear boom removed (as shown here). This equipment can be used for land smoothing maintenance and tillage on irrigated farms, and land forming to correct surface drainage. (Eversman Mfg. Co.)

(326) ✓



For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man., giving the key number shown at the end of each item, as-(17).



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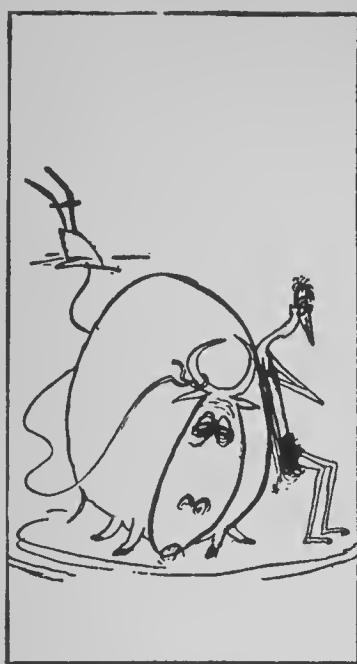
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## Better Way To Kill Rats

by A. L. KARRAS

**I**NFESTATIONS of rats are unnecessary. There is a method whereby farm buildings and warehouses can be made rat free. I discovered the secret quite by accident.

Over the past 20 years I have operated a country grain elevator in southern Saskatchewan. Rats first invaded this area in the late 1920's and found the large grain storehouses exactly to their liking. These buildings were not rat-proof.

I tried every new rat poison that came on the market. These were the type that kill instantly and cause the rats to become bait-shy. I found, in the end, that rats will refuse to take these baits.

A letter from the grain company head office advised that a good rat kill had been affected at one station by adding liquid gopher poison to water and setting this out for rats to drink. I made such a set using a tin lard pail.

There was no evidence that any rats had been poisoned from the water, but as I examined the container I noticed that rats had eaten away the lard along the rim of the pail. I gave this fact a good deal of thought. Thereby I learned something that I am sure is not generally known.

Back in my younger days I had run a trapline in northern Saskatchewan. I recall one fact very clearly. All

wild animals have one or more weaknesses which vary with the species. For example, foxes cannot resist putrified fish when properly used for bait, and beavers are easily taken by the skilful use of their own castoreum as a lure. The lynx is attracted by tying a piece of red cloth to the tip of a low branch, and the wily coyote is a sucker for a cunningly set snare.

Do rats have such a weakness? They had eaten the traces of lard from my pail. Many animals and birds prefer fat and tallow above all other foods, particularly when cold weather sets in. Why not use lard as a base for my rat poison?

**A**BOUT this time the rat-killer called Warfarin came on the market. I obtained a bottle of the bluish-green powder and read the directions: "mix one part Warfarin concentrate to 19 parts cereal, fish, meat, etc." No mention was made of lard. I followed these instructions using lard as a base. I placed it under the elevator crib.

The results were devastating and complete. Warfarin, which causes death slowly, painlessly, and by internal bleeding does not make rats bait-shy. They ate my bait and as the days passed every rat-hole I had closed remained shut.

I had been storing grain in part of a railway roundhouse that had been

abandoned. A shop staff, using another part of the building sent word that rats were over-running the premises. I gave the shop foreman 2 pounds of lard and a bottle of Warfarin concentrate along with mixing instructions, and showed him where to place the bait under some old plank flooring.

In 10 days I received another complaint from the shop men. The stench from dead rats had become unbearable. An examination of the building disclosed that not only were the rats controlled but apparently completely eradicated!

Was this secret a secret at all? I wrote to the local agricultural representative and to the Canada Department of Agriculture for information on the use of Warfarin as a rat poison. They quickly complied. Nowhere was lard mentioned as a base for Warfarin rat bait. During a 3-hour study at the library of the University of Saskatchewan recently I found nothing on the combination of lard and Warfarin.

I would like to stress that lard is not taken readily by rats during the summer when the bait is apt to turn rancid. In cold weather, however, rats cannot resist lard (butter or margarine work just as well) which they prefer to other food.

Did you ever have a mouse that refused to go near your baited trap? Lard may be the answer, but there is something much more tempting. He cannot resist a raisin. V

### Kelly's Sons Got Their Shares

**J**OHN KOPP was one of the shrewdest farmers in our neighborhood, and all of us respected his Solomon-like wisdom. Perhaps the thing that really brought out his ingenuity was when he was made the executor of Bill Kelly's estate.

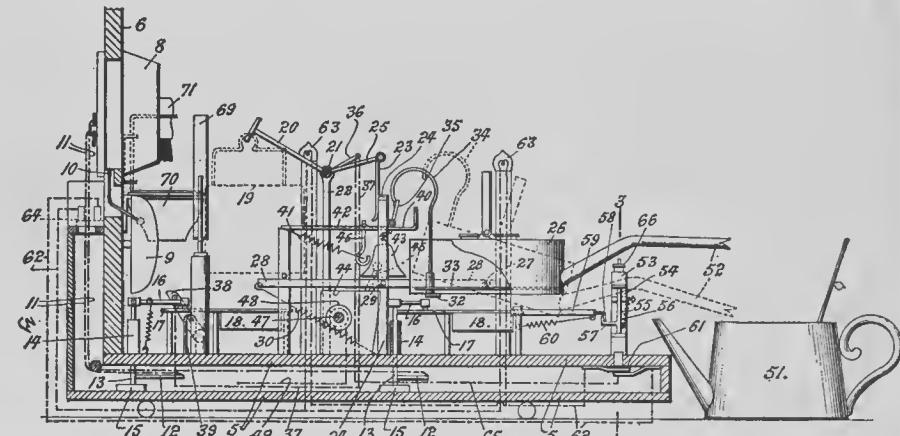
At one time Kelly was a big-time farmer with about 90 cows. He had three sons, and he made up his mind to reward them according to the time each spent helping him milk those cows. That's when he made his will with John as executor.

However, when he died he had dropped his herd to 17 cows, and that was all the livestock on the place. The will said Jack was to inherit half the cows, Bob was to inherit one-third of the cows, and Billy, who hated milking, was to inherit just one-ninth of the herd.

It took John Kopp quite a while to think it through, but he came up with the answer: how to divide 17 cows among 3 boys, giving one boy one-half of the herd, another boy one-third of the herd, and the last boy one-ninth of the herd. How did he do it?

Answer:

John Kopp led one of his own cows over to the Kelly farm, placing her alongside the 17 there. He gave Jack his half, or 9 cows. Then he gave Bob his third of the herd, or 6 cows. Finally, he gave Billy his ninth of the herd, or 2 cows. That accounted for Kelly's 17 cows. Then he drove his own cow home, and everyone was happy.—Della Loui V



This "Automatic Cooking Apparatus" was invented by William Fowler in 1910.

### Odd and Interesting

## All This, and Tea, Too!

by M. J. RIVISE

(Based on the files of the United States Patent Office)

**W**ILLIAM FOWLER liked the great outdoors but he loved his comfort, too. Being English, he wanted his tea and he wanted it fast. He dreamed of resting on his back while the tea "made itself."

And why only tea? Why not the whole meal at the same time? What a boon that would have been for a busy farmer's wife.

So on May 6, 1910, the U.S. Patent Office received a patent application postmarked Canterbury, England. Fowler had invented an "Automatic Cooking Apparatus."

Attached to it were complicated drawings and wordy descriptions that

only a present-day atom scientist (hush-hush) could possibly interpret. There were myriads of wired arrangements of clocks, hammer devices, triggers, cords, wires, chains, and of course sauce pans and pots, not forgetting the inevitable tea kettle.

This amazing maze of tangled wires seem to start operations with a bellows which tips a kettle—when the alarm clock rings—and pours boiling water into a teapot.

Then there is more than a tempest in a teapot. Steaks sizzle, potatoes are fried, beans are roasted and you get hot water for shaving. A shaving brush and a mirror are ready for immediate use. And for your lonesome moments a place for a book, or you can use the memo pad and pencil to write to your folks.

All this, and tea, too!

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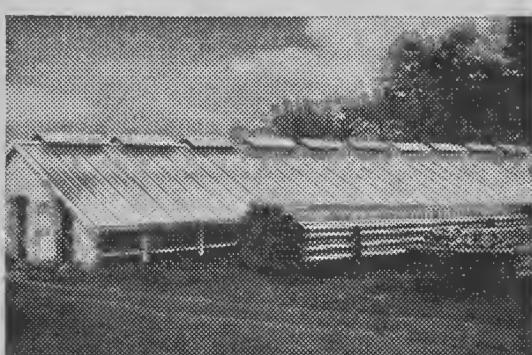
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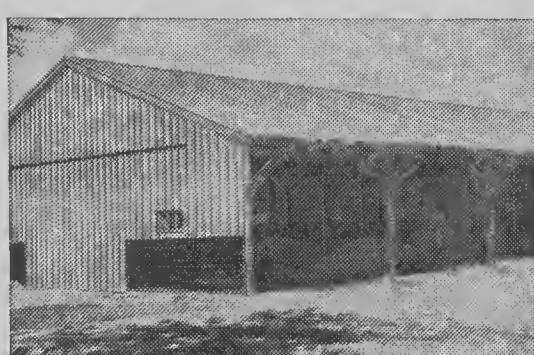
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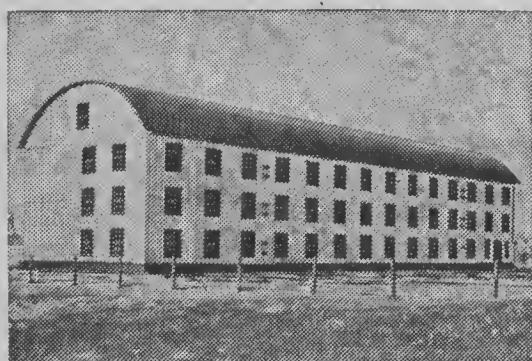
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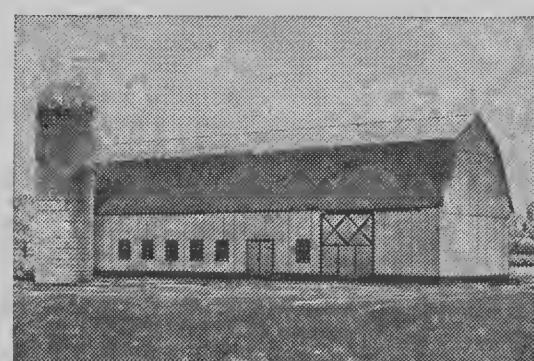
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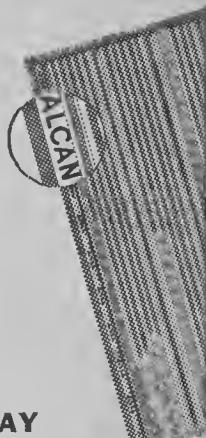
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# floodwater

by NORAH BURKE

Illustrated by CLARENCE TILLENIUS

**W**HEN the wild elephants came out of the jungle, with a forest fire behind them, they saw that the river which they intended to cross was in full flood. The herd stumbled to a standstill at the edge of the water, snorting, jostling upstream-downstream-making up their minds what to do. Behind them, a column of smoke rolled in the blue sky. In front, the great Rapta River foamed and thundered.

Among the herd of mothers and young cow elephants and half-grown ones, and the big ivoried bull, there scuttled a baby elephant a few months old. He'd had a job to keep up with them through the jungle, but now there was a chance to get his breath back. He kept as close to his mother as he could, and when she stopped he hid himself among her safe tree-trunk legs and peeped out like a mouse.

His little wrinkled body was thinly tangled over with long black hair that would presently wear off, but at the moment it held bits of leaf and stick and a lot of dust. When he'd been new-born he'd had no trunk at all; now it was already lengthened out into a proper elephant trunk, useful for everything, and he moved it about all the time as he saw the others did theirs. He was about thirty inches high.

He observed the tumult of water without alarm. It poured past in a furious gray lather, full of roots and branches and

dead things. This was the end of the hot weather, when forest fires could start for a lick of lightning—a spark struck by flying hooves, in the hot air, in the parched grass. But also it was the beginning of the monsoon. Heavy rain had already fallen in the hills, and filled the dried cataracts with boiling dirty water, all of which had come down together in one head into the Rapta Valley; and here it was, raving along, half a mile wide.

Commotion increased among the elephants. They feared nothing in the jungle, but this was unpleasant. The big old bull felt his way down into the angry river, but he backed away from the task, alarmed, bothered, grumbling and tossing his large wise head as if shaking out a headache.

Suddenly a young cow elephant who had been at the back and was aware of the fire more than the flood, made up her mind and hurried straight to the front at a purposeful swing. She put up her trunk and plunged into the tide. In a moment she was swept off downstream as she paced forward with great swimming strides.

The rest followed her, some in a flurry, others with the resolution of despair. Soon all the elephants were strung out down the river. Only the baby and his mother were left on the shore.

She swung worriedly to and fro in short rushes at the edge of the water, trumpeting to the herd. But there was nothing for it, she must follow. Apart from the fire, the jungle was not safe for a baby elephant alone. He was still small enough to attract tigers. They must keep with the others. But more than that, the pull of the herd instinct was stronger than anything else. Something tied her to them, and she followed.

The baby was bewildered and upset. He didn't like it when she hustled him down to the waves. He loved water and had already learned its delights, but that was in oily pools with green mud to slap about on sun-hot hides. Now everything was horrible, and he just wanted to get away.

His mother, however, was insisting on obedience.

"Floodwater" is another delightful story by Norah Burke, a distinguished author who writes from firsthand observation of living creatures in their natural haunts. It is one of 21 short stories appearing in her book "Jungle Picture," published in England last year by Cassell.



She arranged herself below him so that the press of the river would hold his body against hers and they could swim together through the deluge.

Side by side, they plowed into the flood.

THE current washed him, irresistibly strong. His hot dry skin, which had been longing for water, began to feel nice again. But next moment the safe land went from under his feet. He squealed with terror, paddling madly, trying to walk in the water. However, all animals can swim without learning, and he too.

Then his mother also became water-borne; and all the silken strength of the river, gathered from all the hills and snows of Himalaya and all the rainclouds of Asia, heavy with the Indian Ocean, dashed them away downstream at a single stroke.

He didn't like it. There was a terrible feeling everywhere, but no time to suffer in the struggle for life. Against him, his mother's muscles bulged in her fight to keep facing the right direction, to keep steerage way on. They swam steadily forward, and the far shore came slowly nearer.

But suddenly there sounded a new note in the turmoil — a menacing rabble of noise. Behind them, a fresh rush from a big tributary was galloping along on top of the raging river and eating it up. A wall of water, crowned with a dry crust of foam, came gabbling along over the surface of the Rapta, faster even than the tearing water they were in.

In a moment it was upon them, broke over them in a crash of water and sunlight. They were spun around and torn apart.

The elephant calf did not see his mother go. She just vanished into the wild water, while he himself got tossed up and under-rolled over and over in a cauldron of bubbles and gray foam.

Then somehow he was on the surface again, swimming for all he was worth.

At the same moment he saw land close ahead, and something solid touched the soles of his feet.

Half drowned, he dragged himself onto an island of boulders and rubble which lay like the back of a crocodile in the flood.

IT was a small rough island without vegetation, halfway across the Rapta River, and it changed shape every year with the monsoon. During the spring, river terns nested here in noisy clouds, laying their speckled eggs in the sand made of ground-up boulders.

The young elephant struggled onto the beach, crunching pebbles and empty egg-shells underfoot; and stood there trembling, not able to take another single step. It was all he could do to remain upright.

Water trickled off him everywhere. Along his back, the sun began to dry him straightaway.

Presently he blew the river out of his nose, and squealed to his mother.

She was nowhere to be seen.

He quested round with his trunk to try and locate the herd. He could smell floodwater with torn leaves and

earth in it, and a drowned buffalo lying blown and stinking on the shore. He could smell the foam that lay like sponges on the beach, with the wind boring holes in it. And all the baked brown grass and rattling seedheads and gnawed bones of the hot-weather jungle. And live trees burning. But no elephant. On a favorable wind he could have smelt at three miles distance the friendly warm scent of his own kind, and the mess they made in the forest, pushing over saplings and bamboo, and stirring up smells from the bottom of stale pools, and their clean droppings of digested fiber.

Presently, feeling better, he shook himself, and a lot of dried sand fell off him. He stood scratching his tummy with his trunk. Pulled up a

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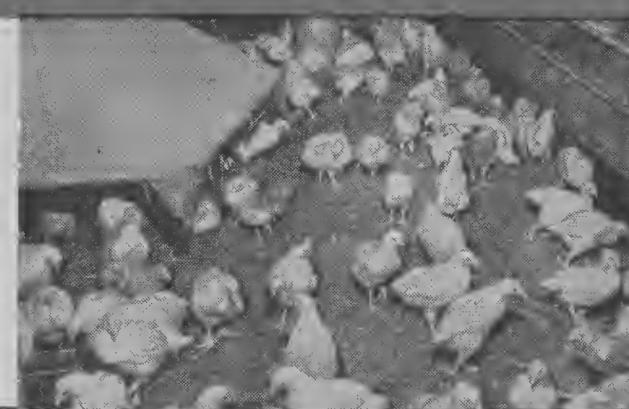


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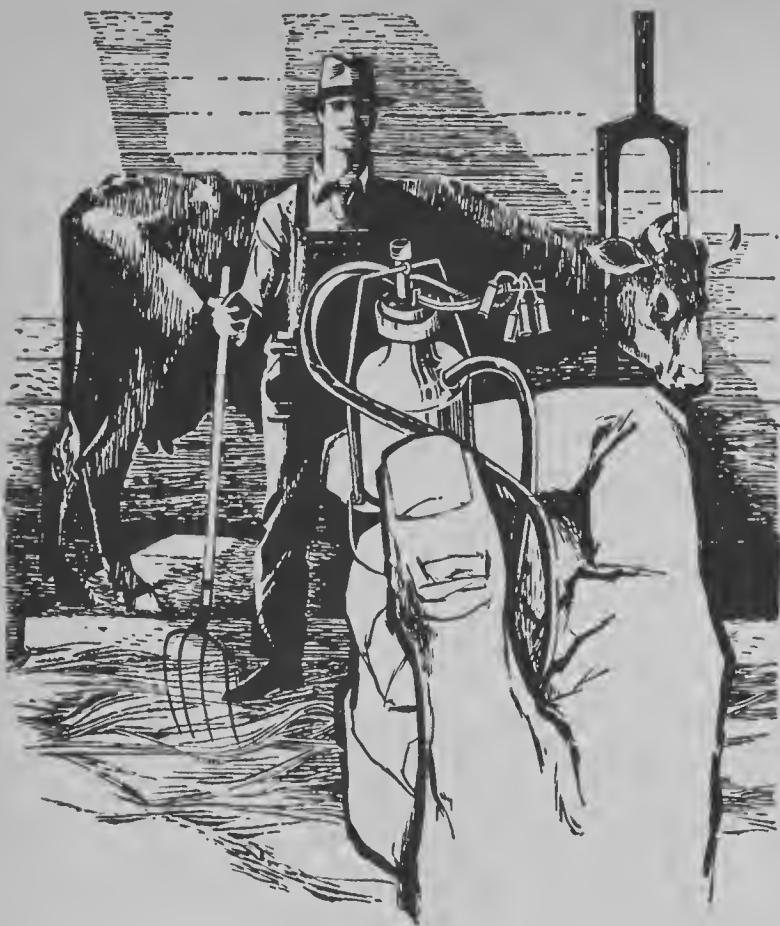
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tussock of coarse grass that had managed to find root in this inhospitable shore, and flipped it about for a fly-flap as instinct said, and as he had seen the big elephants do. He stood at the edge of the water, tail, ears and trunk going all the time, just like a grown elephant, resting first one leg then another, throwing sand over himself and making his washed body dirty again. Sucking his trunk and thinking.

After a while he noticed that the land he was standing on was getting soft. It jellied under his feet, and he could hear the sand bubbling inside. He drew back toward the middle of the island, but there wasn't much middle left. Along the edge of the water, the boulders, marked by cormorant and kingfisher, were sinking.

The little elephant stood on the last bit of his island, and he was very frightened. He cocked his ears forward and peered anxiously across the tumbling silvery water. Presently there were scum and sticks washing about his feet.

He clung to his last bit of land until the water actually lifted him and floated him, and then he had to swim.

SOMEHOW he kept up, though he had no idea of direction. The current took him out and out in broadening sweeps until, where the river turned, he was carried peacefully round into quiet shallows, and deposited with the rubbish on the opposite shore.

He climbed out, not surprised, not frightened, but looking about at all the things that kept happening to him.

Now it was sunset. The river was not stormy any more but flat gold. Among trees already blackening with night, monkeys and peafowl were choosing places to sleep, the last bees leaving the milky scented blossoms of a climbing plant. An owl passed in white silence. There were mosquitoes and jackals.

Suddenly came the honk of alarm of a sambhur stag, and immediately also a wattled plover cried his alarm "Did-you-do-it? Did-you-do-it? Dick—Dick—did-you-do-it?"

The baby elephant stood listening. In the distance, a tiger called.

From the hills the other side of him, the call was answered.

Back and forth between the pair of tigers, their voices bounded.

Terror seized the elephant. Knowing no better, he put up his trunk and trumpeted for his mother.

A long way away—she answered.

He squealed again and again.

From far down the river where she had been searching for him, the mother could be heard replying, coming nearer. She was traveling carelessly. Foliage crashed.

Then—the tigers ceased to call. Now they meant business.

THE elephant could hear his mother, avalanching toward him and trumpeting. But he did not answer her any more. Some primary instinct of wild blood told him to freeze in silence because great danger was very near.

Around him, stars cast their weak and peaceful light, in which jungle

eyes could see quite clearly. The small elephant stared in all directions at once, not knowing what to look for or what to do when he saw it. He stood rooted in nightmare, while the horror closed upon him.

Through the jungle came the burst and brush and slide of a large elephant traveling at speed, without minding how much noise she made. And as she came, she bellowed threats and instructions and consolation.

Among the trees, a shadow.

The other side of him, another.

The attack came.

A tiger streaked, dipped under his chin and seized his throat. Simultaneously, the tigress was at his heels to hamstring him. Teeth and claws tore his flesh. Death hugged him in big orange paws.

At the same moment his mother burst upon them.

In normal times, tiger and elephant passed each other by in the forest, each respecting the other, though two tigers would have been a match for one elephant. But now this one had an ally. It was the irresistible fury of a wild mother in defense of her young.

She charged the tigers, her trunk curled up tight under her chin out of harm's way. She arrived like an earthquake; and the pair of tigers, who could kill anything in the jungle, scattered before the righteous power of her attack, and bounded away. They could be heard slumping off into the night, roaring with angry disappointment.

The mother elephant stood swaying over her baby, rumbling and talking, running her trunk over him to discover his injuries. The skin of his throat was deeply punctured, so was his leg, yet he had escaped mortal damage. Blood dripped from him, but the mud and water and dust and leaves of the forest, and the dry air, and then the rain, would stem the bleeding and close his wounds. Pain would ebb and cease. Though he would suffer yet, and carry the marks for perhaps sixty or a hundred years, he would live.

His mother was there again, big above him—the rock of life. Satisfaction and love and pleasure purred in her voice, and anxiety dissolving.

Presently, when the little elephant was able to move, they ambled off to join the herd. They disappeared together among the starlit leaves and ancient trees, and the forest closed behind them.



"The way she's kicking she must be sick. Does her milk seem OK to you?"

The Country Guide's magazine for rural women

# Lessons In Leadership

by GWEN LESLIE

SIXTY-FOUR people left their homes and families in rural Ontario last month for a week at Canada's most romantic spot. It was Valentine month and for a week they listened, learned, discussed and dined in full view of the famous Niagara Falls.

They had one thing in common. Each of the sixty-four was a selected delegate from Ontario's counties and farm organizations to the fifth annual Rural Leadership Forum.

The conference is sponsored by six farm organizations and two government departments. The Ontario Federation of Agriculture, the Federated Women's Institutes of Ontario, the Ontario Farm Radio Forum, the Junior Farmers Association of Ontario, the Ontario Folk School Council, United Co-operatives of Ontario, the extension branch of the Ontario Department of Agriculture and the community programs branch of the Ontario Department of Education participate in its organization. This year, for the first time, the Ontario Farm Union was represented.

The Rural Leadership Forum is planned to meet a recognized need for trained leaders. Farm organizations, in common with any other kind, depend for success on good leaders. Because of the nature of farming, few farm people have been able to undertake any formal training in the art of leadership. Delegates to the Forum course have an opportunity to learn about fundamental human behavior and how it affects their organizations and society in general. The Forum program defines good leadership, and how delegates can become strong, sound leaders in their communities. Sixty-four people responded to these opportunities with enthusiasm last month.

"WHAT is the most important thing for rural people today?" asked one delegate, an active women's institute member. "Is it education?"

"What sort of education?" queried a Folk School delegate. "Academic education or education in values?"

"Education is very important," agreed a young teacher, "not just schooling, but a process which leads to identification with a broader community than our own local area."

Here was an opportunity to learn, and learn, they did! Delegates learned from the specialists who lectured, from the small discussion group instructors, and from one another.

Staff members helped define the reasons for the satisfactions and frustrations everyone feels in organization work. Delegates learned just how broad a responsibility leadership embraced. They heard how leadership training involved membership training, and how some forms of strong leadership incurred the hazard of weak membership participation. They learned that a sensitive leader, alert to the ideas, skills and capabilities of his members can tap unused vitality and strengthen the group's efficiency.

FROM H. S. Fry, former editor of The Country Guide now affiliated with the Ontario Agricultural College, delegates heard something of effects of the farming environment on the welfare of farmers and the farm industry. He traced the fading of the farmer's independence, a loss which is not always admitted. He cited the relative isolation of the farm worker against the close contact with one another which is common in many industries.

"A certain measure of isolation is inherent in farming as an occupation. Working within the confines of a 100-acre farm, how often does the average farmer come within even shouting distance of anyone other than the members of his own family? How many times a week is he likely to be mentally excited, inspired, jolted or kicked, by contact with other human beings who in one way or another may stimulate his intellect, cause him to reflect more carefully about something he plans to do, or lead him to change his mind about something he has decided not to do?" Mr. Fry asked. He underlined an urgent need for education in the complex farming business and for active participation in farm organizations.

Sound carries. When the last session of the day ended after 9 o'clock in the evening, the sounds of the Forum recreation hour carried beyond the auditorium. Other hotel guests envied Forum delegates their fun.

Ken Young, director of the community programs branch, charged the delegates with carrying the sounds of the forum back home. "The gain from these forums is measured in the changes in the community on the leaders' return."

That's true for any conference.



Farm people are familiar with man's struggles with and against nature. In winter the famed Niagara Falls present a spectacle of nature at war with herself. The torrents flow free throughout the winter months. Only the ice below and towering peaks of frozen spray give evidence of the season.



Public speaking was one communication skill practised in the discussion groups. His listeners agreed that surgery was not the only solution for Lorne Archer's problem of what to do with nervous hands; holding a sheaf of papers anchored them in a manner that was satisfactory to all present.



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## Make Your Housework Easier

ALTHOUGH housekeeping is just a part of homemaking, it sometimes seems a full-time job all by itself. If you feel this is true in your home, perhaps you can make your housework easier and do it in less time.

Industry has been analyzing work methods for years, and increasing production through the use of better methods. Katherine Bailey of the University of Wisconsin suggests the homemaker can use a four-step plan to improve work methods. Try it, then rate yourself on the time and energy-saving techniques below.

### Four-Step Plan

1. List each part of the job.
2. Question each part. Can you eliminate any part? Can any be combined or rearranged? Can the job be done more easily?
3. Work out a new way of doing the job after questioning the parts.
4. Use the new method until you are sure you like it, or can find a better way to do the job.

### DO YOU USE THE BEST METHOD?

#### Choose Good Tools

- \_\_\_\_\_ Use wheel cart or wheel barrow for carrying laundry basket to prevent stooping.
- \_\_\_\_\_ Use a tray or wheel table in setting table and clearing it.
- \_\_\_\_\_ Have a basket for storing and carrying cleaning supplies.
- \_\_\_\_\_ Use vacuum cleaner attachments for dusting walls, woodwork and floors.
- \_\_\_\_\_ Keep extra bread, cake, pie, cookies in the freezer.

#### Arrange Supplies

- \_\_\_\_\_ Use half shelves and spice racks or step shelves to double your storage space.
- \_\_\_\_\_ Store flour, sugar, spices, flavorings, and mixing bowls at the mixing center.
- \_\_\_\_\_ Store skillets, platters, and serving bowls near the range.
- \_\_\_\_\_ Wash dishes from right to left with dishes stacked on right of sink and dish drainer on the left.
- \_\_\_\_\_ When storing dishes in the cabinet, stack only like things—bowls and dishes of the same size.

#### Plan Storage Helps

- \_\_\_\_\_ Have a place for children to put school books.
- \_\_\_\_\_ Have a place near back door for school and work wraps.
- \_\_\_\_\_ Have a convenient place to keep garments which need mending.
- \_\_\_\_\_ Keep all cleaning supplies together. If you have a 2-storey house, store another set on the second floor.
- \_\_\_\_\_ Have a place to file important business and household records.

#### Use Proper Posture

- \_\_\_\_\_ Stand with toes almost straight ahead and feet slightly apart.
- \_\_\_\_\_ Use a deep knee bend or squatting position for low work.
- \_\_\_\_\_ Have work surfaces the proper height so you can keep back straight when working.
- \_\_\_\_\_ Use large hip and leg muscles to lift body when climbing upstairs, place entire foot on stairs and keep body erect.
- \_\_\_\_\_ Sit on a good chair or stool to do many jobs in food preparation.

#### Eliminate Jobs

- \_\_\_\_\_ Use dish drainers to air-dry dishes.
- \_\_\_\_\_ Use tea towels, bath towels, and sheets unironed.
- \_\_\_\_\_ Cook potatoes with jackets on.
- \_\_\_\_\_ Make drop biscuits and cookies instead of rolled or square cut ones.
- \_\_\_\_\_ Make up mixes to save preparation time.

#### Work Together

- \_\_\_\_\_ Plan together for the jobs everyone is to do.
- \_\_\_\_\_ Each family member picks up his own clothes, toys, books, etc.
- \_\_\_\_\_ Each member has certain household jobs to do.
- \_\_\_\_\_ Praise children to get better results.
- \_\_\_\_\_ Plan work to have time for some family recreation.

#### Plan Your Work

- \_\_\_\_\_ Plan shopping list before going to the store.
- \_\_\_\_\_ Shop only once or twice a week for groceries.
- \_\_\_\_\_ Plan your day's work, allowing some spare time for the unexpected.
- \_\_\_\_\_ Keep a pad of paper and pencil handy to list needed things.
- \_\_\_\_\_ Get away from your work regularly, at least for a few hours.

**Jo Verburg contributes  
craft lessons to the people  
of her community**

# Sweetgrass Farmer's Wife



*Both Jo and Myron Verburg are enthusiastic gardeners and the grounds of their farm home reflect the same regard for color and design to be found indoors. Myron made the decorative metal railings in his farm workshop.*

**W**INTER may be monotonous and drear to many people. Yet Jo and Myron Verburg accept it as an opportunity to develop the creative ideas they've gathered during their busy summer season. As large-scale grain farmers, the Verburgs admit they don't have many chores in winter time. And so they turn their home into a sort of craft center for themselves and their neighbors.

There is ample evidence of Verburg talents throughout their home. Step into their living room, for example, and you see some particularly fine pictures made almost entirely of weed stalks, pods and seeds.

Jo collects her materials at different seasons to take advantage of their variety of shape and color. She carefully dries them and treats them with a preservative. Among the plants she uses are flax, timothy, thistles, milkweed pods, poppy seeds, sunflower cushions, bachelor button seeds,

**by ELVA FLETCHER**

hollyhock buds. In her hands even the lowly stinkweed becomes beautiful. Sometimes cross-cut pine cones become flower centers; at other times they become flowers.

"People tease me because I'm so enthusiastic about gathering the weeds Myron works so hard to control," Jo says. "But I just tell them that farms can be farmed artistically too." Her nieces and nephews share her enthusiasm and they're alert to stalks and seeds and pods that Aunt Jo might use for her pictures.

**I**N winter time the big downstairs family room becomes a craft center. Often furniture is pushed back or re-arranged to make room for work tables for craft classes. Then you'll find both Jo and Myron sharing their know-how and experiences in such crafts as leather tooling and leather carving with their neighbors.

On occasion this same room blossoms into a garden. That's when Jo instructs groups in the flower-making technique she learned at a 12-week short course.

When they remodeled their house, the Verburgs reserved a portion of the basement area for their favorite craft—ceramics. Here, shelves hold a variety of molds and finished pieces from their kiln. Myron, usually a man of few words, speaks with enthusiasm of their experiences in pottery making. Together, he and Jo have experimented rather widely with glazes and colors. They're modest about their successes, quick to admit to making their share of mistakes. A favorite project was a series of plates—one for each family member—to commemorate a special family anniversary.

And in this same area Jo painted a scenic wall mural that blends with the colors in the window draping.

**T**HREE'S an old fable about a pitcher that never went dry. Jo's "quick-craft" box spills out an almost similar stream of these easy-to-make articles. Jo teaches "quick craft" to a number of groups and she defines it as "family craft," because it's pleasant work in which the whole family can share. She looks upon it as "one way to teach children how to make things out of inexpensive materials at hand and a method of teaching them to do things for others." She feels it helps to build a strong family feeling when activities are shared in this way.

A few of the articles that spill out are toasting forks made from ordinary wire coat hangers untwisted and reshaped; a picnic pillow, made of newspapers cut into strips and woven into a soft pad; a mail box (for Mother) made from a dis-



*[Guide photos]  
Not all artists use palette and brush to produce pictures. Jo Verburg utilizes weeds and seeds.*

carded serviette box; a fruit basket of popsicle sticks; and containers of many kinds made from a variety of can sizes, some painted, others covered and decorated.

There's much to be gained when families work at crafts together according to Jo. And she believes children can be trained more satisfactorily by a positive "let's do this" approach than a negative "don't touch that" attitude.

**C**OPPER tooling captured the Verburgs' interest a few years ago; samples of their work in this art are certain to capture their visitors' attention. Jo has completed a number of attractive pictures; yet her favorite piece is a copper lamp base with an antique finish.

Jo treasures older crafts, too. An active member of the local Women's Institute, she shared in that group's triumph when, in two successive years, it won first place in the quilt block competition conducted by the national organization.

She does all her own sewing. And her flare for pleasing use of color and design is visible in each room, whether it's the comfortable decor of the living room, the delicate femininity of bedrooms, or the pleasant atmosphere of the kitchen.

And so winter for Jo and Myron Verburg is neither monotonous nor drear. Instead, it's a pleasant season when they have time to indulge their talents in creative crafts for themselves and their neighbors. V



*Both Jo and Myron enjoy working with various leathers. Here are some samples of their talent.*



*In the Verburgs' hands plain pottery takes on beauty of color and original, imaginative design.*

# We Found Our Shangri-la

*the place where living  
is measured by the heart  
rather than the pocketbook*

by L. R. LINTON

HERE certainly isn't anything unusual about a rural route mail box. Yet ours gives us a sense of satisfaction, perhaps because it symbolizes the fulfillment of a dream.

For many years we were city dwellers because we had to be. But we always hoped that one day we could exchange our street number for a rural route address. Four years ago we realized our dream. Looking back, we're convinced that life has been richer since we moved to the country.

Actually, the move was a gradual thing. Six years ago we decided the first step was to purchase a place for week ends and holidays. This was easier said than done, because we had to meet three conditions: First, there must be some land with the property; secondly, there must be privacy; third, the sea must be nearby. We tracked down newspaper ads, and contacted real estate agents. Many times our hopes were dashed by the inaccessibility of a place or the number of dollars needed to buy it. Had we been searching for gold our search might have been easier, because that precious metal can still be found in many British Columbia streams, and our dream seemed to exist only in our minds.

IT was at the end of an August day. An obliging agent had taken us up and down country lanes and we were still drearily shaking our heads. He scanned his list and said to my husband: "There's only one place we haven't covered, and I doubt if that would be suitable for you, sir. The steps leading to the beach from the house are in a bad state of repair and would be dangerous."

But my husband, who lives his life on two artificial legs, comes from a tenacious breed. He likes nothing better than a challenge to his self-sufficiency. And so we turned down a trail overgrown with greenery on either side, and stopped within view of the sea. We followed the agent over the footbridge, slip-covered with honeysuckle, and there it was . . . a neglected garden on a gentle slope leading to a white cottage perched directly above the blue sea that shimmered in the late afternoon sun.

"This is it," my husband whispered excitedly. Behind the agent's back we grinned at each other and held hands like a couple of kids.

It was our good luck that the cot-

tage was in a fine state of repair. Mentally it was ours before our feet had crossed its threshold. It boasted both electricity and modern plumbing. From an all-year-round mountain stream, water traveled to the taps through a thousand feet of piping. The conventional bathroom was freshly painted in a soft blue. Outside, the white-washed biffey was thoughtfully placed where the long view to the west was especially beautiful at sunset.

The acre of land that comprised the property was partially wooded by evergreens. Through the tall trees we found an old well hiding in a patch of fragrant mint. In the part that had once been cleared a half dozen fruit trees struggled for survival in a jungle-like growth of blackberry vines intertwined with wild bamboo, mare's tail and a host of other weeds. Shaky wooden steps led down to the beach where a pert little boat waited in a tilted boathouse. My husband grunted contentedly . . . there was good salmon fishing at our front door.

TWO years passed before we moved here permanently, but we never missed spending week ends or holidays at the cottage after our purchase. Then, one night our daughter, who had just finished her teachers' training course, said to her dad, "If I apply for a teaching position in the district, do you think we could move to 'Lyncrest'?"

I knew Ken had often tossed this idea around in his mind. "I don't see why not. The sea has fish, the woods



*This cottage with its rural route address is the Lintons' dream-come-true.*

have deer and grouse, the beach has wood for fuel, and the garden will soon have vegetables."

Then, his face lit up in a big smile and his voice rang out. "Indeed, I don't see why not. Let's go."

That night, as I planned the future with my husband, I understood the depth of his dream, perhaps made so by his experiences. He could remember three wars. He had soldiered through one from beginning to end. He had traveled a lot and suffered a lot. But nothing, not the far countries, nor the wars, nor the physical misery had ever dimmed his hope

that one day he would find his Shangri-la.

FOUR years later we still marvel at the feeling of independence our country home has given us. We have learned about the delicate balance of living and what a fine thing it is to live within ourselves, and not be always dependent on others for reassurance.

As Ken predicted, the sea gives us fish, the garden vegetables. The beach gives us fuel, although our main heating unit is oil fired. Deer and grouse inhabit the woods, unharmed, because we are not hunters by nature.

We have not been idle. Gone is the jungle growth of weeds. In its place is a vegetable plot, strawberry and raspberry patches, some blueberry bushes, lawn and lots of flowers.

Small fruits give us fruit and jam for winter and summer. There are plum, apple, pear and cherry trees which we keep for their spring cascade of beauty rather than their fruit.

The vegetable garden is not large but it is adequate. Epicure early potatoes occupy only three 20-foot rows, but we eat them from early June and have enough to do until Christmas. Most vegetables grow well if the rocky soil is generously fed. Seaweed from the beach below helps. Last year 24 plants yielded 300 pounds of beefsteak tomatoes. We often begin our planting in Feb-



*The Lintons take special pride in the vegetable plot. They reclaimed it from a jungle-like growth and have learned how to get the most from it.*

*(Please turn to page 82)*

Ford leads in style and value



FAIRLANE 500 TOWN SEDAN—one of  
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# Ford drives 30,000 carefree miles without chassis lubrication

**Another Ford Extra At No Extra Cost**—This is just one of the many quality features that make the 1961 Ford, Canada's First Carefree Car. Thanks to a new sealed-in lubricant in the front suspension and steering linkage joints, your new Ford can now be driven for about three years without needing a

chassis lubrication. After 30,000 miles an inexpensive lubrication job (between \$4.00 and \$6.00) will normally set your car up for the next 30,000 miles. Your Ford Dealer has such confidence in quality features like this that he has extended his warranty to 12,000 miles\*.

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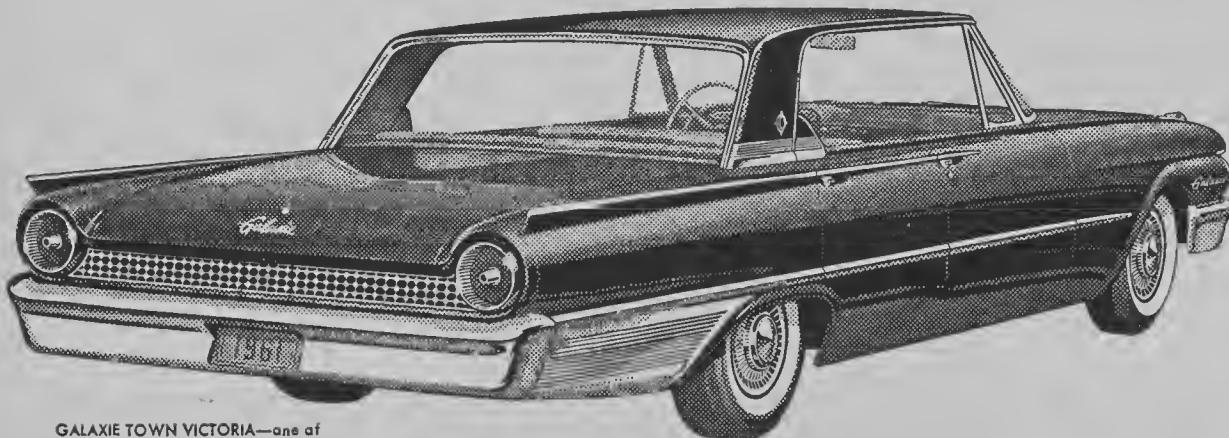
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**Takes care of its own finish**—Carefree Diamond Lustre Finish never needs waxing.

**\*New 12,000 mile warranty**—Ford-Monarch-Falcon Dealers give a written warranty on all 1961 Ford cars for 12,000 miles or one full year, whichever comes first.

(Certain features illustrated are optional at extra cost)



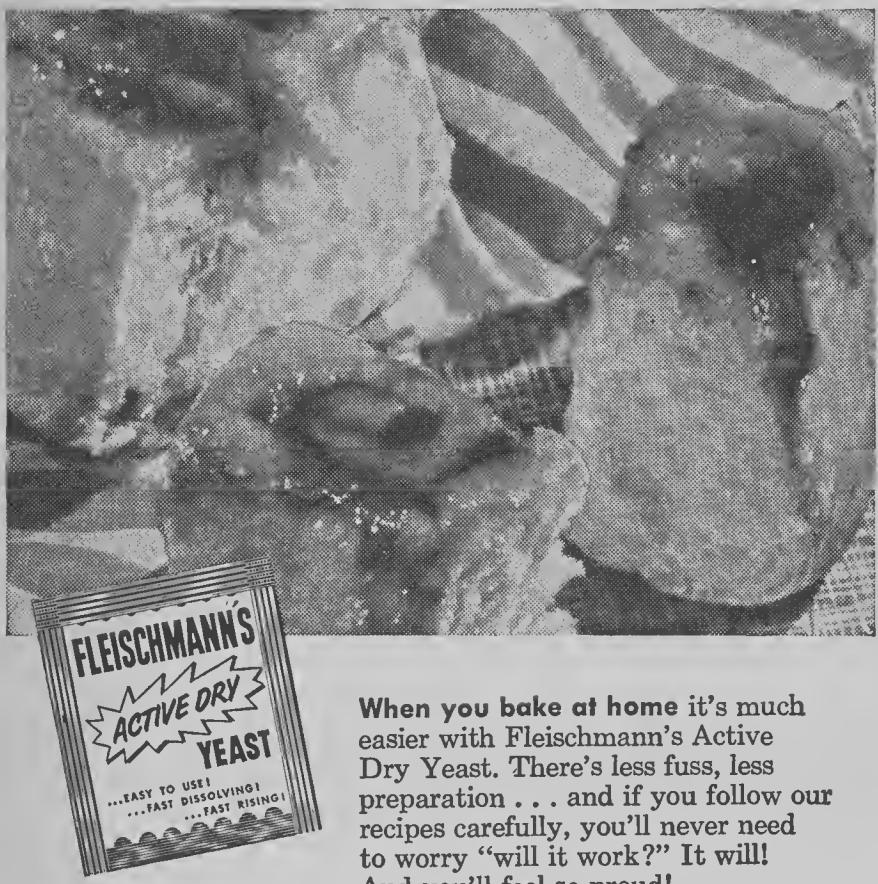
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# There's nothing like Old-fashioned Chelseas ...remember Grandma's?



**When you bake at home** it's much easier with Fleischmann's Active Dry Yeast. There's less fuss, less preparation . . . and if you follow our recipes carefully, you'll never need to worry "will it work?" It will! And you'll feel so proud!

#### You'll need

##### for the dough:

½ c. milk  
¼ c. granulated sugar  
1 tsp. salt  
½ c. lukewarm water  
1 tsp. granulated sugar  
1 envelope Fleischmann's Active Dry Yeast  
1 egg, well beaten  
3½ c. (about) once-sifted all-purpose flour  
¼ c. soft shortening

##### for the filling and glaze:

soft butter or Blue Bonnet Margarine  
¾ c. lightly-packed brown sugar  
2 tps. ground cinnamon  
½ c. seedless raisins  
½ c. lightly-packed brown sugar

1 Scald milk; stir in ¼ c. granulated sugar and salt. Cool to lukewarm.



**3** Knead dough until smooth and elastic. Place in greased bowl. Grease top. Cover. Let rise in warm place, free from draft, until doubled in bulk—about 1½ hrs.



**4** Punch down dough. Knead until smooth. Halve dough and roll each half into a 9" square. Brush with soft butter or margarine. Combine ½ c. brown sugar, cinnamon and seedless raisins; sprinkle over dough. Roll up jelly-roll fashion and cut each roll into 6 slices.



**2** Meantime, measure lukewarm water into large bowl and stir in 1 tsp. granulated sugar. Sprinkle with yeast. Let stand 10 mins., then stir well. Stir in lukewarm milk mixture, well-beaten egg, 2 c. of the flour and soft shortening. Beat until smooth and elastic. Work in remaining 1½ c. (about) flour.

**5** Melt 1 tbsp. butter or margarine in each of 2 loaf pans, brush sides of pans with fat and sprinkle ½ c. brown sugar in each pan. Place 6 rolls—cut sides up—in each pan. Grease tops. Cover. Let rise until doubled in bulk—about 1½ hr. Bake in moderately hot oven, 375°, about ½ hr. Makes 12 fragrant, delicious Chelsea buns, that will be snapped up by the family in no time.

ruary, and we gather vegetables until late in the year.

We've grown many of our flowers from a packet of seed. Ken's Russell lupins and dwarf dahlias bloom from June to September. They have perhaps been the most rewarding. Yet, when I remember the beauty of cosmos, gladioli, chrysanthemums, and dozens of other blooms, I wonder. And there's the special loveliness of spring bulbs, Devon violets and such flowering shrubs as forsythia, lilac, rhododendron and japonica.

Each season has its charm. Each is our favorite while it lasts. Our backdrop of evergreens is as beautiful in winter with its snow cover as it is in summer. We have only fleeting glimpses of it white, for, by the sea, the snow does not remain.

Only our first winter here was rugged. That year, the west coast suffered an early frost in early November. We were swiftly initiated into country living in the wintertime. We had problems galore—the roof leaked, the car had no shelter, the steps to the beach were unsafe, and the water froze in the outdoor piping and stayed frozen for some weeks.

We operated a bucket brigade, and the old well came into its own. After several weeks of this, we decided that pioneering had its drawbacks. By the following winter Ken had connected our plumbing to the well by an electric pump. This gave us an alternate water supply.

**W**ITH so much to do my husband drew up his "5-year plan." It listed jobs to be done in order of necessity and their approximate cost. He has made good progress. Although he is a double leg amputee, Ken has done the work himself. His hands had rarely held a hammer. Yet he designed and built a garage, an old English lych gate, and a spacious sundeck which we call our outdoor living room. The steps to the beach have been renewed, a porch converted to a dinette, and an old-fashioned kitchen made modern.

For the most part our neighbors are elderly, kindly folk. They enjoy country living; they also enjoy the amenities of light, phone and daily mail. The city, where many of their families live, is only 2 hours away by bus and ferry. There are several small communities nearby within a few minutes' driving distance. Their churches, organizations and library provide a varied and busy social life for those who want it.

We are only about 20 miles up coast from Vancouver as the crow flies. Yet, because of the natural topography of the mountains and island-dotted Howe Sound, Sechelt Peninsula seems a world apart.

With logging, fishing and a large mill on the peninsula, civilization is gradually making its inroads. Still, wild animal life is surprisingly rich. Deer often come to the fringe of our woods. For 3 successive years the same bear visited us when the plum trees were heavy with ripening fruit, and the blackberries dropping from their vines. Along the shoreline, at the base of an immense cedar, we found evidence of a bear's den.

**O**UR daughter still shivers at one morning's memory. Waiting for her usual ride to school, she looked up the road to see a large animal loping in her direction. Because of its markings and huge paws she first thought it was a St. Bernard dog. Then she realized it was a cougar. At that moment her ride came round the bend and the cougar struck off into the woods. "I was petrified," she said. "My knees wanted to buckle under me all morning."

She wasn't any more scared than my husband on another occasion. He had been deep-sea trolling for salmon from his small rowboat about half a mile off shore, with about 200 feet of line out. Suddenly a tremendous splash jerked him out of his reverie. He explained: "Suddenly I seemed to be in the center of a huge roar. Everywhere I looked there were great splashing fins. There I was in the middle of a school of whales in an 8-foot rowboat. All I could do was to cut my line and hope for the best. Using every ounce of energy, I rowed with all my might. Our shore never seemed so far away, and never did it look so good as when I finally made it."

**T**HE beach affords us three hobbies which will last us a lifetime: gathering fanciful pieces of driftwood; looking for unusual pieces of rock (some real jade has been picked up on this beach); and the most interesting of all—studying the many species of waterfowl and marine life that come and go on the water in front of the cottage. Through binoculars we've seen sea lions, seals, blue herons, cormorants, loons, bald eagles and many kinds of ducks and gulls.

We're never lonely. Rich in friends, work and hobbies, our days never have enough hours. Television, radio, records, piano and books add to pleasurable living, and leave no room for isolation.

One night not long ago we watched a TV adventure story about Tibet, that austere but beautiful country of James Hilton's "Shangri-la." By way of the TV screen we climbed its mountains and met its people. Then, suddenly, the beams of a bright searchlight from a passing tug lit up our living room. We snapped back to our own wonderful world. We knew our Shangri-la was right here.



## Cookies For Family and Friends



*Mary Jane Pocock enjoys baking in their remodeled farm home kitchen. Daughter Mary Ann is eager to sample mother's wares and shares them proudly with her family and friends.*

[Guide photo]

THREE-YEAR-OLD Mary Ann Pocock is one of the most gracious junior hostesses I've met. We had hardly arrived at her home on Pinehurst Farm near Coburn, Ont., when she asked, "You will stay for tea, won't you? And we can have a chat with tea!" We accepted, of course, and gained an opportunity to sample Mary Ann's favorite cookies, made from the Coconut Cookie recipe below.

Small hands reach eagerly for fresh cookies. Even while a youngster's sense of direction is uncertain, almost every one can find the way to the cookie jar. This month's cookie recipes will help supply the demand at your house.

#### Mary Jane's Coconut Cookies

2/3 c. butter	1 1/2 tsp. baking powder
3/4 c. sugar	Pinch salt
1 egg	1 1/4 c. sifted all-purpose flour
1 tsp. vanilla	1 1/2 c. coconut

Cream together the butter, sugar, egg, and vanilla. Combine the sifted measured flour, baking powder and salt and sift into the creamed mixture. Blend thoroughly, then add coconut.

Mary Jane Pocock packs this cookie dough into empty baby food tins and chills the dough in the refrigerator at least overnight. She says it pushes easily from the tins and can be sliced thin for baking. Bake in a moderately hot oven at 400°F. for about 6 min. Yields 4 1/2 to 5 dozen cookies.

#### Sour Cream Chocolate Drops

1/2 c. shortening	2 c. sifted cake flour
1 c. firmly packed brown sugar	1/2 tsp. salt
1 egg, beaten	1/2 tsp. baking soda
1 c. broken walnuts	2 tsp. baking powder
2 oz. unsweetened chocolate, melted	1/2 tsp. cinnamon
1/2 tsp. vanilla	1 c. dairy sour cream

Cream shortening and sugar. Blend in beaten egg. Add walnuts, melted chocolate, and vanilla. Mix and sift flour, salt, baking soda, baking powder and cinnamon. Add alternately with sour cream to chocolate mixture. Drop by teaspoons on greased cookie sheets. Bake in a moderate oven at 350°F. about 15 min. Yields about 3 doz. cookies.

#### Oatmeal Icebox Cookies

3 c. quick-cooking oats	1/2 tsp. salt
1 c. brown sugar	1 c. butter, melted
1 c. flour	1 tsp. baking soda
	1/4 c. boiling water

Mix oats, sugar, flour and salt in mixing bowl. Add melted butter and stir well. Dissolve baking soda in boiling water and add to oat mixture. Form dough into rolls and chill in the refrigerator. Slice thin and bake on a greased cookie sheet in a moderate oven at 350°F. for about 5 min.

#### Butter Crunch Cookies

1 c. sifted all-purpose flour	2/3 c. soft butter
1/4 tsp. baking powder	1 egg
1/2 tsp. baking soda	1 tsp. vanilla
1 c. lightly packed brown sugar	3/4 c. rolled oats

Sift flour, baking powder and baking soda together three times. Cream butter; gradually blend in brown sugar. Add egg and beat well. Stir in vanilla, rolled oats, coconut, cornflakes and sifted dry ingredients. Drop the dough by rather large teaspoonfuls, well apart, on an ungreased cookie sheet. Flatten with floured fingers. Decorate if desired with fruit, nuts, etc. Bake in a moderate oven at 350°F. until golden, about 10 to 12 min. Lift cookies from the pan



[Butter Advisory Committee photo]  
Butter Crunch Cookies with fun-faces of fruit are popular in lunchboxes.

by GWEN LESLIE

to a wire rack immediately. Let cool completely, then store in a closely covered container. Yields about 3 1/2 doz. cookies.

#### Melting Moments

3/4 c. brown sugar	1/2 tsp. baking soda
1 c. butter	1/2 tsp. cream of tartar
1 egg	1/4 tsp. salt
1 3/4 c. sifted all-purpose flour	1 tsp. vanilla

Cream butter, add sugar and cream thoroughly. Add egg and beat well. Stir in vanilla. Sift dry ingredients together and stir into creamed mixture. Drop cookie dough from teaspoons on a buttered cookie sheet. Bake in a moderate oven at 350°F. for 4 to 5 min.

*Note:* Do not overmeasure baking soda; a level 1/2 tsp. is correct.

Bake a sample cookie first to test the stiffness of the dough. Melting Moments should stand up like a hermit cookie. If you have used a large egg, the dough may be too runny, the sample cookie will spread out and you will need to add a little more flour. A small egg may give a stiff, dry cookie.

#### Neapolitan Cookies

2 1/2 c. sifted all-purpose flour	1 tsp. vanilla
1/2 tsp. salt	1/4 c. chopped glazed cherries
1/2 tsp. baking powder	Red food coloring
1 c. butter	1 oz. unsweetened chocolate
3/4 c. sugar	1/4 c. chopped walnuts
1 egg, unbeaten	1 c. cornflakes

Sift flour, salt and baking powder together. Cream butter, add sugar gradually and continue creaming until well blended. Stir in egg and vanilla. Gradually stir in dry ingredients, mixing well after each addition. Divide dough in three equal parts. Set the first portion aside for the vanilla layer. To the second part, add chopped cherries and enough red food coloring to tint dough a pleasing pink. Add chocolate and nuts to the third portion. Chill dough about 1 hr. Shape portions separately into 12 by 2 by 1/4 in. lengths. Put together with the pink layer in the middle. Slice cookies 1/8 in. thick and bake on an ungreased cookie sheet in a moderate oven at 350°F. for about 10 min. Cool 5 min., then remove to cooling rack. Yields about 5 doz. cookies. ✓

**CROWN BRAND**  
makes it better!

#### Apple Scallop

5 medium apples, sliced  
1/2 cup CROWN BRAND Corn Syrup

1/4 cup water  
1/4 teaspoon salt

1/2 cup butter or NUCOA Margarine

1 cup sifted all-purpose flour

2/3 cup brown sugar  
1 teaspoon grated lemon rind

1 teaspoon cinnamon

PLACE apples in 1 1/2-quart casserole.

COMBINE CROWN BRAND Corn Syrup, water

and salt; pour over apples.

CUT butter into flour, with pastry blender or 2 knives, to the consistency of corn meal.

MIX in remaining ingredients; cover apples with flour mixture.

BAKE in hot oven (425°F.) 25-30 minutes.

SERVE warm with cream, if desired.

**YIELD:** 6 servings.

#### Jiffy Sauce

1 cup CROWN BRAND Corn Syrup

3 tablespoons butter or NUCOA Margarine

1 teaspoon lemon extract

PLACE CROWN BRAND Corn Syrup and butter in saucepan.

BRING to a boil over medium heat; stir constantly.

REMOVE from heat; add lemon extract.

SERVE hot.

**YIELD:** 1 1/4 cups.

ALL MEASUREMENTS ARE LEVEL



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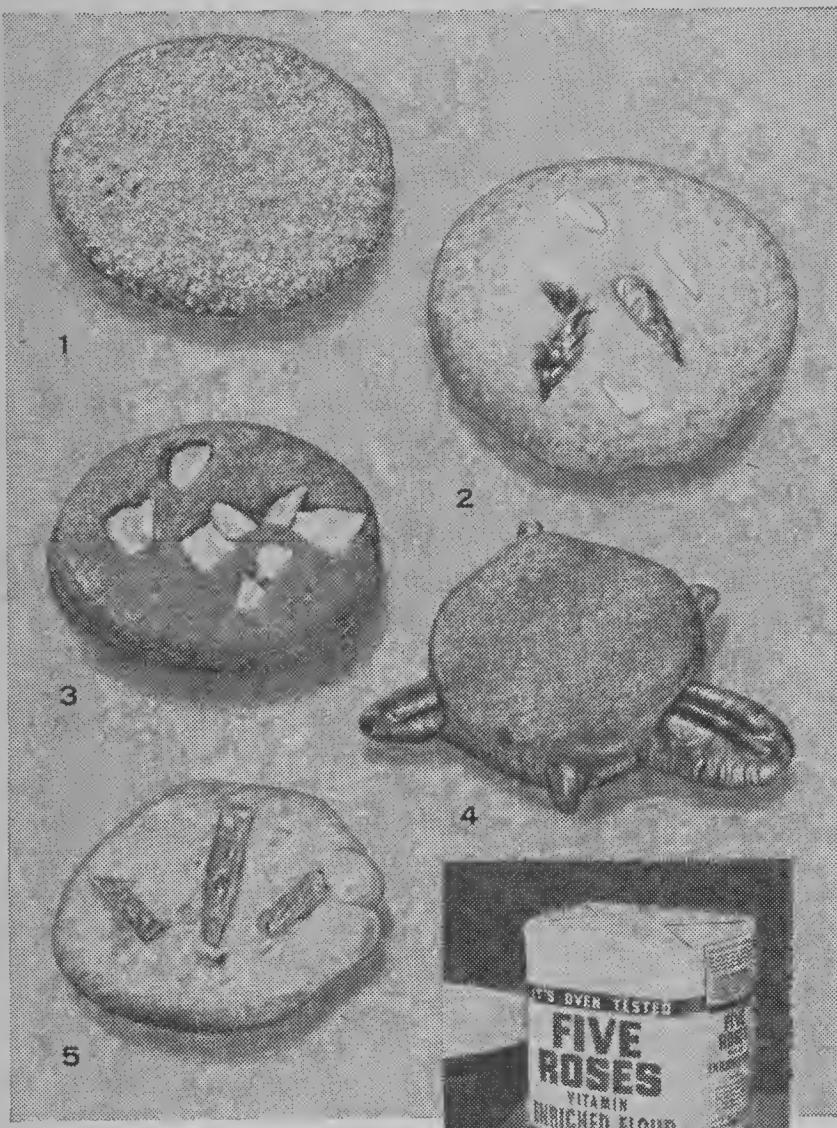
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Five Roses Flour is pre-sifted through silk to save you baking steps.

## Basic Refrigerator Dough Recipe

2/3 cup butter	2 1/4 cups Five Roses Pre-Sifted Flour
1 cup brown sugar	1/4 tsp. salt
1 egg	1/2 tsp. baking soda
1 teaspoon vanilla	

Cream butter. Gradually add brown sugar and cream well. Add egg, vanilla, and beat well. Sift flour with salt and baking soda; stir into batter. Use dough as is or in any of variations listed below. Shape finished dough into long rolls, about 2" in diameter. Cover with waxed paper and chill until hard. Slice thinly, place on cookie sheet. Bake at 350° for 7-10 mins. Makes 6 dozen cookies.

## Variations (use 1/3 of dough for each variation)

1. *Sandies:* Bake a plain cookie. Dredge with (coloured) powdered sugar while still warm.
2. *Jewel:* Add 2 tbsps. chopped red and/or green maraschino cherries and 2 tbsps. chopped nuts.
3. *Chocolate Nut:* Add 1 oz. melted unsweetened chocolate for chocolate dough. Add 4 tbsps. chopped nuts.
4. *Turtles:* Between 2 slices of chocolate dough, place whole pecan (for head) and 4 pieces chopped pecan (for legs).
5. *Orange:* Add 1 1/2 tbsps. grated orange rind.

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## Refresh Your Pickle Supply

HAVE fall and winter meals depleted your pickle supply? If so, you'll be interested in these recipes for relishes that can be made now.

### Cranberry Relish

1 apple (medium)	2 T. bottled tart)	16-oz. can whole cranberry sauce
1/2 c. diced celery	1/4 tsp. salt	

Core apple and put through coarse blade of food chopper, or dice fine. Mix with remaining ingredients. Let stand in the refrigerator several hours for flavors to blend. Makes 2 cups relish.

### Winter Chili Sauce

Two 28-oz. cans tomatoes (7 cups)	1 1/2 c. finely diced celery
1 large onion	2 tsp. salt
2 medium apples	1 tsp. ground allspice
1 c. vinegar	1 tsp. cinnamon
3/4 to 1 c. sugar	1/8 tsp. cayenne pepper
(based on tartness of apples)	12 whole cloves (tied in cheese-cloth bag)

Place tomatoes in large kettle. Put onions and apples through food chopper, using the fine blade. Dice celery in small pieces. Add onion, apple, vinegar, celery, sugar and seasoning to tomatoes. Bring to a boil and boil until thick, about 1 1/4 hr. Stir frequently. Remove cloves, pour chili sauce into sterilized jars and seal. Store in a cool, dark place. Yields about 7 cups sauce.

### Winter Orange Relish

4 oranges	1 small onion
2 carrots	1/2 c. sugar
1 green pepper	Few grains salt

Quarter oranges, remove any seeds. Scrape carrots, quarter lengthwise. Quarter the green pepper and remove seeds and stem. Put fruit and vegetables through the food chopper, using medium blade. Add sugar and salt; mix well. Chill, covered, in the refrigerator for several hours before using. This relish keeps well in the refrigerator. Yields about 4 cups relish.

### Beet Relish

4 c. finely chopped canned beets	1/2 c. grated horse-radish
4 c. finely chopped cabbage	1/16 tsp. pepper
1 tsp. salt	2 c. sugar
	1 c. vinegar

Combine beets, cabbage, horse-radish, salt, pepper and sugar. Heat vinegar and water to boiling point. Add to first mixture and mix thoroughly. Pack into hot sterilized jars and seal. Yields about 8 cups relish.

### Quick Corn Relish

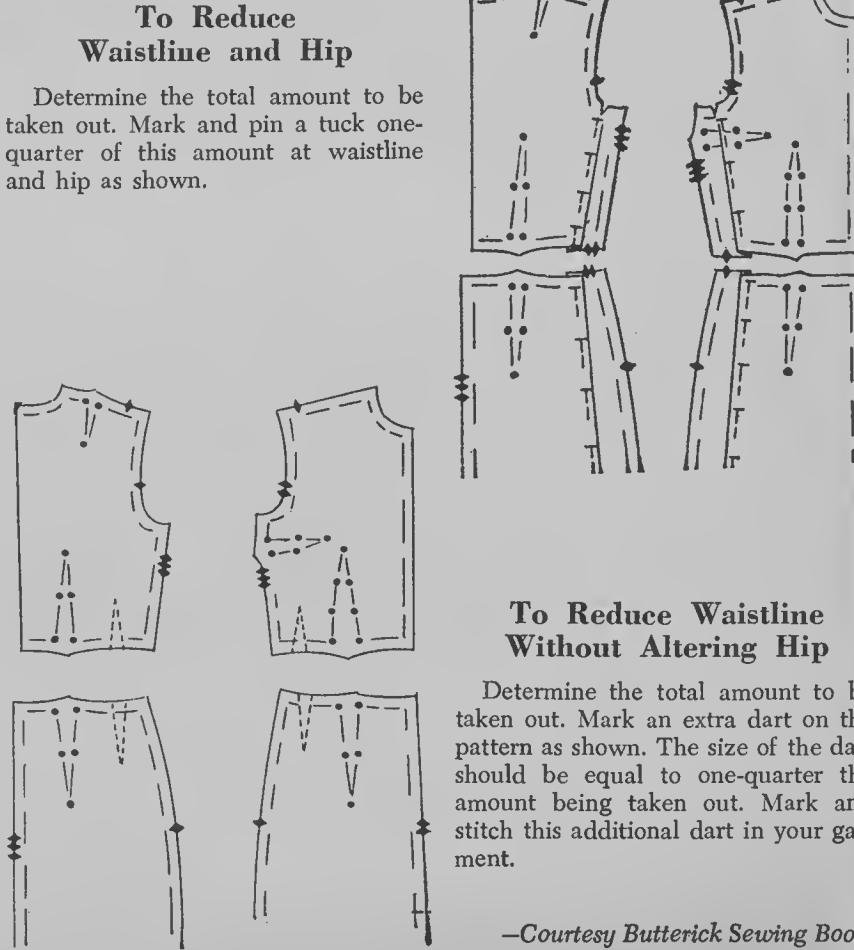
14-oz. can whole kernel corn	2 T. butter
2/3 c. chili sauce	2 T. chopped green pepper
2 T. minced onion	(optional)

Drain liquid from corn. Add remaining ingredients and simmer, covered, about 5 min. to blend flavors. Serve with tongue, ham or other meat. Yields 2 1/4 cups.—G.L.

## Clip and Save Sewing Hints

### To Reduce Waistline and Hip

Determine the total amount to be taken out. Mark and pin a tuck one-quarter of this amount at waistline and hip as shown.



### To Reduce Waistline Without Altering Hip

Determine the total amount to be taken out. Mark an extra dart on the pattern as shown. The size of the dart should be equal to one-quarter the amount being taken out. Mark and stitch this additional dart in your garment.

—Courtesy Butterick Sewing Book.

# Try a Round Robin

by LORRIE McLAUGHLIN

SINCE we were married sixteen years ago we've moved half a dozen times. Over the years, our friends and relatives have done the same thing and so our circle of friends is a large and widespread one.

Unfortunately, we haven't always kept in touch with all of them — except for the yearly Christmas card and an occasional hasty note of congratulation when a new baby arrived.

This past Christmas, when cards began arriving, we were shocked to find out that we could barely remember whether Johnny and Nell had three boys and a girl or two girls and two boys. It was the same with most of the cards! Even when we could sort out the children by name, we seldom remembered whether they were five or six years old, whether they were in grade one or grade two.

The years and distance had made our circle of friendship much too wide and loose!

We decided, finally, to begin a sort of "round robin" letter, outlining what we'd been doing over the past year, identifying our children, and bringing everyone up to date on our family at least. In our minds was the hope that some of our friends and relatives would do the same thing.

We had considered making the family letter a Christmas card, but we decided against it because we felt most people were too busy over the holidays to read such a letter carefully. Besides, we felt Christmas was already bursting with tradition and custom!

BECAUSE we knew such a letter would take preparation and time, we decided to send it at Easter time — another spiritual festival when the links of family and friendship seem especially strong.

We wrote a rough draft of our activities for the year. We cut it, condensed it and re-wrote it until we had enough to fill a page, with space left around the border for line drawings.

The cost of having our letter printed was prohibitive, so we bought a stencil at an office supply store and typed out our message. Using a borrowed stylus, we drew rough sketches of the family around the edges and lettered "Greetings from our house to your house" across the top.

We ran off 75 copies of the letter, using the mimeograph machine at the church. When it was completed, each of the family signed it — right down to 2-year-old Robbie who made a wobbly mark that he proudly claimed as his.

Since the first letter went out last year, we've had three "Round Robins" back . . . an indication that others are as anxious to keep in touch as we are. ✓



This fluffy-crumb cake combines luscious coconut flavor right in the batter with mouth watering milk-chocolate icing. And when you bake it with Magic, you'll serve it with pride!

## I made it myself — with Magic!

### LUSCIOUS COCONUT LAYER CAKE

Sift together

2 1/3 c. once-sifted  
pastry flour

or 2 c. once-sifted  
all-purpose flour

3 tsps. Magic Baking  
Powder

1/2 tsp. salt

Cream in a mixing bowl

3/4 c. butter or  
Blue Bonnet Margarine

Gradually blend in

1 1/4 c. fine granulated sugar

Add, one at a time, beating in well after each addition

2 eggs

1 egg white

Combine

2/3 c. milk  
3/4 tsp. vanilla

Add dry ingredients to creamed mixture part at a time, alternating with milk and combining lightly after each addition.

Fold in

3/4 c. cut-up shredded  
coconut

Turn batter into 3 greased 8" round layer cake pans, lined in the bottom with greased waxed paper. Bake in mod. hot

oven, 375°, 20 to 25 mins. Stand on wire racks 10 mins. Turn out, peel off paper and allow cakes to cool completely. Put layers together with a filling and frosting of Milk Chocolate Icing and sprinkle with toasted coconut.

*Milk Chocolate Icing:* Sift 3 1/2 c. sifted icing sugar and 1/2 c. cocoa together. Cream 1/2 c. butter or Blue Bonnet Margarine; add 1 egg yolk and beat until well blended. Add sugar-cocoa mixture alternately with sufficient hot cream (about 1/4 cup) to make an icing of spreading consistency. Beat in 1 tsp. vanilla.



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9435

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9545

No. 9509. Lace trims one shirt-and-full-skirt costume; a slimly tailored version features trouser pleats, patch pockets. Junior sizes 11, 13; Misses' sizes 12, 14, 16, 18. Pattern price 60¢.

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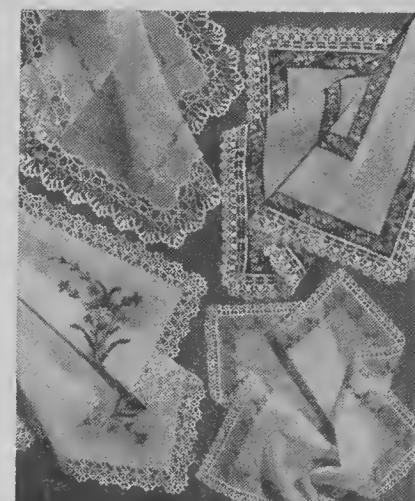
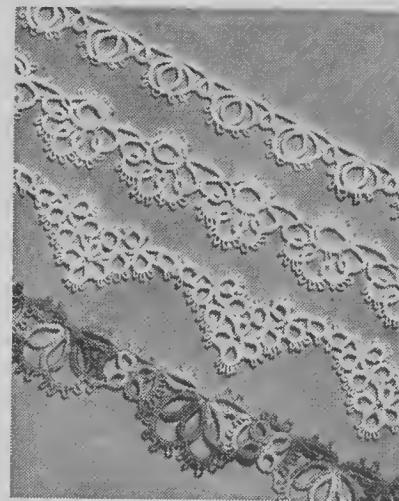
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## HANDICRAFTS

### Edgings and Insets

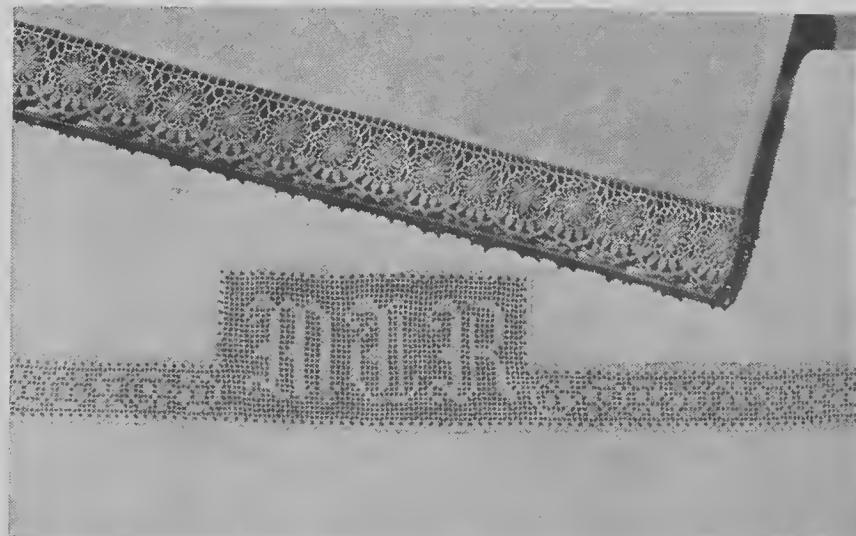


Leaflet No. C-S-903, priced at 10¢, offers instructions for a tatted filigree motif inset for placemats. The same motif is used for the apron pocket. The leaflet also features directions for the tatted edging used to trim the apron.



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For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

Here are some helpful suggestions to follow when you are buying children's shoes

## Fit for the Future

If they knew, they would tell you. But they don't know, so they can't tell you. That's the story when it comes to asking children if new pair of shoes fits—or if an old pair is still comfortable.

Young feet are so soft that they can be deformed without pain or discomfort. Then it is too late! Selecting your child's shoes need not be a guessing game, for there's much you can do to assure a proper fit.

It will help if you bear in mind what the shoe must do. The young foot, in a shoe, should be able to flex and grip without harmful pressure on any part of the foot. Next, make sure the salesman measures both feet, length and width, for a child's two feet are seldom identical. He should take the longest and widest measurement as his guide. Always have your child try on both shoes.

Testing the fit of the shoes is a simple matter if you use this 5-way test. With the child standing, check these points:

1. Length: The shoe must be long enough at all points of the foot. Shoe length is not merely a matter of toe-room or grow-room. Correct length also depends on the relation of the shoe to the arches of the foot. To make a length test, run your fingers along the inner side of each



The widest part of the foot should coincide with the shoe's widest part.

hand. If the leather wrinkles under the pressure of your fingers, the shoe is too wide. If it feels tense and bulging and fingers slip across it too easily, the shoe is too narrow. Test both shoes.

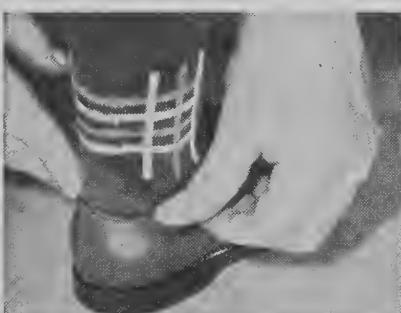
3. Ball: The ball of the foot must meet the ball of the shoe. The test:



Check to see that the ball of the foot meets the ball of the shoe where the sole begins to curve in under the arch.

the ball of the foot should rest at the break of the shoe, that is, at the junction of the arch and the sole. This point, the ball of the shoe, is where the sole leather begins to curve in under the arch and where the upper leather begins to curve to support the arch. Observe the inner side of both shoes and note whether the ball of the big toe rests immediately above this point of the shoe.

4. Heel: It must neither slip nor pinch. The heel of each shoe must be wide enough to give the child a



The heel should be just snug enough to cling to the foot during walking.

shoe just above the sole, from heel to ball. If the shoe fits the curve of the arch with reasonable snugness, it is a good length fit. Don't press the shoe over the toes. You can't get a reliable impression through the toe cap, and you may damage the cap and the shoe. It's all right to press your thumb against the upper leather just ahead of the little toe. If you feel a little slack in the leather between toe and cap, the length is probably right.

2. Width: The shoe must be wide enough to furnish support without pressure. If the shoe is tight, it is too narrow. It must be wide enough so that it exerts no molding force. To test for width, first look to see if the child has enough width across the ball of the foot. Now reach down and pinch thumb and forefinger slowly across the ball. The shoe should feel snugly fitted without apparent tension, and the leather should slide smoothly under the

firm base with ankles straight and weight evenly distributed. It should not pinch at the back nor under the ankle. It should cling to the foot as the child walks. Perform this test: run thumb or finger along the upper edge of the back part of both shoes to be sure of a snug fit. The heel and ankle should fit with comfortable snugness. Ask the child to walk

away from you so you can see the shoes in motion. Make sure they don't slip at the heel.

5. Grow-room: The grow-room test is a mental review of the four steps you have already followed. If you are satisfied that the shoes fit in



When buying children's shoes, allow a margin of safety for growing room.

these respects, then you can be sure they provide enough grow-room. It's your assurance that the shoes will fit adequately for 6 to 16 weeks, depending on the child's age (the younger the child, the faster he outgrows his shoes).

There remains a final step in protecting your child's feet. Check from time to time on the condition of his footgear. About every 2 weeks—perhaps on the 1st and 15th of each month—check wear on heels and soles. If they're worn through, your youngster not only has less cushioning for his feet but is a likelier candidate for wet feet and colds.

Feel the inner sole periodically. If it ripples or curls, your child's shoes are less comfortable than they might be. Remember, children can't be depended upon to tell you when their feet hurt.

Notice how your child ties his shoelaces. If they are loose, his shoes aren't giving his feet the necessary support. If laces are tight, the resulting pressure may deform his feet.

Such sole-searching pays off. If you select a reputable shoe store, see your child gets a perfect fit and learn how to check on what's afoot with him, you have taken three giant steps toward giving him a healthy pair of feet with a lifetime guarantee of good service. V

### Strategy

"Come to lunch, Tom, right away!"  
(I think he must be starved today)  
I find I'm talking to a wall,  
He does not hear or come at all.  
Ah, yes, I know, I've missed my  
cue . . .  
Why, I'm famed cook, Chuckwagon  
Sue,  
"Hi, Two-gun Tom, come get your  
chow!"  
He gallops in without a row.

—MIRA WALIKO.

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**Seed catalogs and  
packets suggest it's time  
to consider making a**

## Seedbed in the House

by JANET CURETON

HAVE you been looking through the new seed catalogs, or glancing over those beautifully illustrated packets in the local store? Most of us do at this time of the year. Then up pops that annual question: Shall I try to grow my own plants? Often we answer it by closing the catalog or putting down the packet.

Please don't. It's such fun to grow your own plants. You can have so many more, and some new varieties as well.

Yes, I know all about zinnias that won't germinate, and asters that do — but die. I, too, have read scientific articles on "How to Grow Your Own Annuals," which are full of instructions about seed flats we don't have and soil mixtures we can't make. Maybe the ground is still frozen in your locality. But don't let these things discourage you. Growing your own plants is really far simpler than it appears to be. I have learned several successful little tricks that I gladly pass along.

First of all, don't start them too early. I have found that a sturdy plant four inches high grows much better, and gives larger flowers than a tall spindly one. Because few of us can put our annuals out before the end of May, we should not plant our seeds until April. Start with petunias, snapdragons, and salvia; then asters, marigolds, phlox and zinnias last of all, for zinnias germinate and grow very quickly.

What to plant them in? You do not need seed flats. Some of the best annuals I have ever seen were started in ordinary flower pots on the kitchen window sill. Everyone has empty flower pots. The 4-inch size is the handiest, but larger ones are just as good. Seedlings do not need a lot of nourishment, so the mixture in the starting pots is not as important as you may have thought. If you can find some soil outside, that will do. If not, try the vegetable bins in the cellar, or use the soil left in old flower pots. To lighten it, and keep it from packing down too hard while the seedlings grow, get some peat moss. Perhaps you have some left from the brooder house. Failing this, you can use sand.

**T**AKE two parts soil, and one part peat moss or sand. Mix it thoroughly. If you are using peat moss, shred it as finely as possible. Now, put your soil mixture into a flat pan, place a small potato in the center, and bake it in the oven. When the potato is done, so is the soil. This sterilizes the soil and kills both the weed seeds and the bacteria that cause seedlings to die. Sterilizing the soil is most important, as many failures can be traced to the lack of this one simple step. Cool thor-

oughly. Now you are ready to start your planting.

Put some pebbles or bits of broken crockery in the bottom of your pots for drainage. Fill to within an inch of the top with your mixture. Leave some for topping. Using an old kitchen sieve, or a piece of screening, sift a half inch of soil into each pot and pat it down evenly. Broadcast your seeds over the surface very thinly. Remember they need plenty of room to grow. Small seeds like petunias need extra care. I usually sift some soil into a saucer, mix a few seeds with it, and then sift the whole thing over the surface of the pot. Pat it down firmly. Petunias do not need to be covered. Sift soil over the larger seeds until they are just covered.

Always water seed pots from the bottom. The easiest way is to place each pot in a saucer, fill the saucer with water, and keep filling it until the top of the earth becomes moist all over. Place your pots and their saucers in any convenient location where the temperature is between fifty and sixty degrees. No light is required at this stage. They can be lined up in a corner, or even under the sink. Cover each one with a piece of cardboard or paper.

Keep the soil moist but not wet. It's a good idea to check them every few days to make sure the soil never becomes dry. Watch carefully for the first sign of seed leaves. In annuals, germination time varies from one to three weeks. Don't be discouraged if, at the end of two weeks, you have some pots that are still blank.

As soon as the seedlings appear, bring them out to the light. Pots in saucers sit very nicely along the window sills but if nights are cold, move them back from the glass. To conserve moisture during the growing period, you can put a small plastic bag over the top of the pot. However, I do not recommend this for petunias. I keep my petunias open to the air, and take extra care to see that the soil is always moist (they dry out easily) and that the noon sun does not heat them.

Turn the pots every day, so that the seedlings will not lean in one direction toward the light. By using the tallest windows you have, you give the seedlings more overhead light. If you are fortunate enough to have an older house with low deep window sills, you'll find them perfect for the job.

Leave your seedlings in their pots until the third and fourth true leaves appear. That will be six leaves in all, counting the two seed leaves.

**N**OW they are ready for transplanting. By this time you should be able to get fresh earth from the garden. Old berry boxes

**Pierre**



*The book says "Water the plants from the bottom."*

make excellent containers for young plants, or perhaps you have some plant boxes from last year. You can mix a little sand with the fresh earth to help lighten it, but you do not need to sterilize it because it will spend part of its time in the sun.

Move the seedlings very carefully so you don't damage the small roots. Using a pencil or small pointed piece of wood, start from the edge of the pot and work in, taking one plant at a time. Leave plenty of room between each plant, allowing about four to each quart berry box. Punch a hole in the earth, drop the roots in and firm gently around each one. Water thoroughly and place in a shady place, free from drafts, for two or three days.

From now on you can water them from the top. Give them plenty of light and turn your boxes as you did the pots, to keep the growth even. When they are growing well and have developed several more leaves, they are ready for a breath of fresh air. On warm sunny days, put them outside for a little while, in a sheltered place. This will develop sturdy, hardy plants. Gradually extend their time outside until they are out most of the day. Be careful they are not in a windy place, or caught in a sudden storm.

Setting-out time varies according to your location. Frost-free nights are essential, of course, but it is always wise to wait a little longer to give the earth time to warm up. Leave the boxes outdoors for a few nights, before you move the plants into the garden.

The best time for transplanting is a warm evening when there is no wind. Break the berry boxes and cut the earth into squares, leaving a plant in the center of each square. By doing it this way you don't disturb the roots and the plants are not so likely to have a setback. Do not put fertilizer in the bottom of the holes because it will very often burn the young roots. Instead, work well-rotted manure or fertilizer into the ground around the plants, and

let the rain carry the nutrients down through the soil.

If you have tomato plants, bury the stalks about half way up, angling them in a sort of trench. Tomatoes will root up the buried section and give a much stronger plant with more fruit. Water your plants for a few days to give them a good start. And, if the sun is hot, shade them with old shingles stuck in the ground.

That's all there is to it. A few things to remember — and may you have the best garden you have ever had. V

### Perpetual Talker

*I have a friend who never stops  
When she gets started talking;  
No matter if I say: "I think—"  
Ten times, there is no balking  
This lady as she gallops on,  
While I, frustrated, mutter:  
"Oh, but—" "I would—" or "Yes,  
indeed—"*

*Each ending in a sputter.  
I listened while I think how I  
Would like to gag her clatter  
So I could hold the floor and air  
My own fine line of chatter!*

—FRANCES GORMAN RISER

### To Spring

*Spring is here—we welcome you!  
We bid old Winter now, "Adieu."  
The trees, that stood in winter's light,  
With lacy hoarfrost shining bright,  
They now must change to shades of  
green;*

*Their leafy covering now is seen.  
The birds return and gaily sing—  
They, too, are messengers of spring.*

*The seeds awake from winter's blast;  
The dormant state for them is past.  
Fresh shoots and buds now grow to  
bring*

*The early flowers that come with  
spring.*

*And man awaits with urge to sow  
The seed from which the crops will  
grow.*

*The seed is sown with faith to bring  
A harvest bright—the Hope of Spring!*

—J. B. FLOYD

## Save That Baler Twine!

by EDITH JANE HARRISON

**D**ID you know that sturdy, practical mats and hammocks can be made from discarded baler twine? Eighty-seven-year-old Arthur Bertrand, who lives on his son's farm near Norwich, in southwestern Ontario, makes twine mats. In his spare time, he has fashioned over 200 of them for friends, relatives, and acquaintances, using twine cut from hay bales. He has also made a few hammocks from the twine, including a small one for his grandson.

If this hobby appeals to you, start saving your twine now. Cut it at the knot, to give you a long strand to work with. Then braid the strands (three together, nine strands to each braid). Next, put them together into a braided oval mat similar to those you make from old nylons or wool.

Using a curved "bag" needle, sew the braids together with a single strand of binder twine, which is thinner than the baler twine.

The only limit to size and shape is your personal need and the amount of twine on hand. Some of Mr. Bertrand's mats are 20 by 32 inches; some are much larger.

He makes large mats of the regular 9-strand braids sewn together lengthwise. Cross braids at 1-foot intervals reinforce and keep braids from spreading.

To hold a hammock, Mr. Bertrand uses spreaders which are boards notched at each end. The ends of the braids are wound about the spreaders and sewn into place. Outside braids extend to a knot, from which ropes can be fastened to tree trunks.

There is little expense involved in making twine mats. And they are ideal for inside the kitchen door, outside the door, in sunroom or hall, or in front of the sink. They also make excellent covering for the porch floor. □



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Mats such as the one shown can be easily made from left-over twine.

# The Country Boy and Girl

## A Frog Is Born

Story and photos by DOUG GILROY

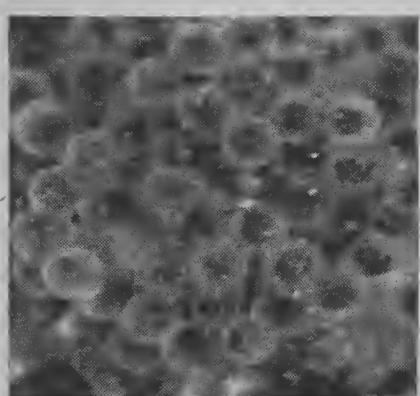
**S**AY Dad, why don't you photograph something else besides birds?" It was Greg, my 7-year-old son, speaking.

The season was spring and we were seated on the bank of a small creek. I glanced his way and saw he was staring, fascinated, into the shallow water.

"Well okay," I answered. "What should I photograph?"

"Why don't you take a picture of some of these wiggly things in the water?"

I stared with him and sure enough, the water was teaming with all sorts of small aquatic creatures.



Frogs lay eggs in a jelly-like mass.

They looked pretty and colorful enough, but oh! so hard to photograph.

I was just about to explain this to him when suddenly I became aware of some frogs setting up a chorus of croaks in a large pond nearby.

"I have it," I exclaimed almost excitedly. "You've always liked frogs; how would it be if I photographed the life story of a frog and you help me?"

Like all young boys, Greg's enthusiasm was quickly aroused at the thought of doing something different. We had to start not tomorrow or the next day, but right now!

And so I embarked on a small, but most interesting, photographic project.

**F**ROGS, like most other amphibians, start their life cycle in the spring, so we couldn't have a more opportune time to begin our series. Our farm home is situated in a spur of Saskatchewan's famous Qu'Appelle Valley and we could never be too far from our subjects because Boggy Creek runs practically past our back door and there are plenty of other ponds and springs nearby.

"First of all," I said jokingly to Greg, "we have to find a frog's nest." Greg said he didn't know that frogs made nests. I explained that they didn't make a nest like a bird, but when a female or mother frog lays her eggs she deposits them in a large gelatin-like mass in a warm sheltered part of the water; and I

suppose if you wanted to, you could refer to it as a frog's nest.

Small species of frogs are capable of laying 1,000 eggs at once and to the human eye they look much like a bunch of tapioca floating in the water.

Just as a male bird sings to attract a mate, the male frog sings his croaking song to attract a female. And so each spring, all across Canada, one can hear that great and delightful din of frog music.

When a 'ripe' female frog, attracted by the croaking of the males, enters the water she is instantly clasped by a male. As she deposits her eggs he fertilizes them by covering them with a secretion of milt or sperm. Within an hour each egg covers itself with a thick coating of protective jelly, which, of course, explains the gelatinous mass.

Almost instantly the eggs develop into embryos. And now the first stage in the 'birth' of a frog begins.

Although 1,000 eggs seem like a lot for a single small frog to lay, that larger species, the bull frog, is capable of producing 25,000 eggs at one time; and one species of toad up to 32,000.

Approximately six days after laying the eggs hatch into tadpoles or pollywogs. At this stage they have little round bodies and slender wiggly tails to propel them through

the tail is re-absorbed into the body—the tadpole has now become a frog.

The exact time of metamorphosis, of course, depends on the species of frog. Some remain tadpoles for longer periods of time than others.

**G**REG and I didn't have much trouble locating a frog's nest to suit our photographic needs. We found a nice batch of eggs in a small pool about four feet wide by six feet long. In fact, these eggs were so fresh the parent frogs were still at the water's edge. They were leopard, or grass frogs.

"This pond isn't very big," remarked Greg. "What would happen if it dries up before there are young frogs? Wouldn't the tadpoles die?"

"Yes, I guess they would," I answered. "That's just another way nature has of keeping the frog population in check. You see, if every egg produced a frog, the world would soon become a living mass of frog life; so nature provides ways and means of holding back the population. A lot of wild creatures help in this too. Tadpoles and frogs provide food for herons, mink, turtles, coons, skunks and all sorts of other things—even people."

We saw plenty of proof of this in the weeks that followed. Often we surprised bitterns and night herons feeding in places where we saw myriads of pollywogs. We were even lucky enough to see a skunk hunting frogs in the grass one evening.



Little leopard frogs like this will sing in the frog choir this spring.

closer look and for photographs. This was an excellent pond for study because we found tadpoles in practically all the life stages.

Some were typical pollywogs with only tails; others had their hind legs just starting to sprout or well on the way. Some were right in the middle of metamorphosis—with widening mouths; forelegs and long tails. These reminded us of lizards, and they were quite lively when held in the hand.

A thorough search didn't reveal any which had already turned into frogs. We did find plenty of adults of various sizes along the water's edge and in the grass. We guessed their ages to be between one and three years old, because there were three distinct size groups. According to amphibian field books, frogs breed at two years of age.

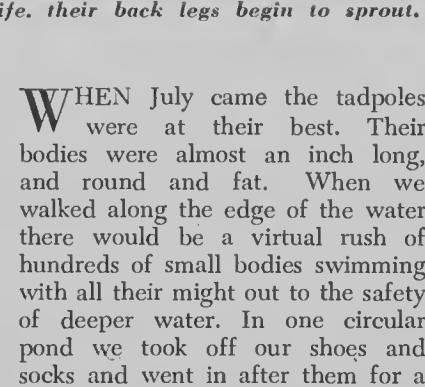
It wasn't until the latter part of August that we actually found "new-born" frogs in any number. And when we did Greg was quite intrigued with them. As a matter of fact so was I. Most wild things are cutest when they are young, and juvenile frogs are no exception. Their bright trim bodies are about three-quarters of an inch long, their legs sleek and slender.

"Well, I guess this about winds up our frog pictures for this year," I said to Greg as I put the camera back in its case after photographing a typical specimen.

"Yeah, I guess so. What do frogs do in the winter time?"

"They dig into the mud in the bottom of creeks and pools and hibernate there all winter."

"Gee!" said Greg thoughtfully. "I guess it would be hard to take a picture of a frog buried in the mud in the water." And then after another thought—"Yeah! It sure would."



As the life cycle of the frog moves on, he becomes half-tadpole, half-frog.

# Young People

Listen  
for learning

## How Well Do You Listen?

This quiz is based on studies made at the University of Minnesota by Dr. R. C. Nichols with 100 "best" listeners and 100 "worst" listeners. It seems that students devote at least 40 per cent of their day to listening to teachers and others. Yet only 25 per cent of what is said registers with them at the moment. How many good listening techniques have you?

	YES	NO
1. Even if you are bored, do you listen for something that may be of use to you?	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you listen to <i>what</i> is being said rather than the <i>way</i> it is being stated?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you often find yourself agreeing or disagreeing violently with the speaker?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are you able to pick out the main point of what is being said rather than facts, jokes, and asides?	<input type="checkbox"/>	<input type="checkbox"/>
5. When listening, do you sit or stand straight and look at the speaker intently?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are you easily distracted?	<input type="checkbox"/>	<input type="checkbox"/>
7. Generally speaking, do you enjoy learning new things?	<input type="checkbox"/>	<input type="checkbox"/>
8. Would you say you are open-minded?	<input type="checkbox"/>	<input type="checkbox"/>
9. Do you try to anticipate what the speaker is going to say next?	<input type="checkbox"/>	<input type="checkbox"/>
10. Do you ask yourself, "What points has he made so far?"	<input type="checkbox"/>	<input type="checkbox"/>
11. Do you question the accuracy and the scope of the speaker's points?	<input type="checkbox"/>	<input type="checkbox"/>
12. Do you look for things other than the speaker's words, such as his inflections, gestures, facial expressions and mannerisms?	<input type="checkbox"/>	<input type="checkbox"/>

### Answers:

1. Yes. Being interested is of prime importance. If you listen for something that will help you, you are bound to be interested.
2. Yes. Poor delivery is the fault of the speaker to be sure, but poor listening is *your* fault. Don't use an alibi.
3. No. Too much emotion will put a smoke screen in your thinking so you will lose the rest of the points. Be calm and listen.
4. Yes. Too much concern with details will take you away from main points. You may spend so much time laughing at a joke or trying to remember a fact that the speaker will have left you sitting miles back mentally.
5. Yes. "Listening is hard work." To assume the posture of attention is the first step to learning through hearing.
6. No. Know your own distraction level. Close the doors, turn off the radio, sit in the front row. Do whatever is necessary to block out distractions.
7. Yes. Curiosity, like interest, is a great asset for good listening. A student or housewife should listen for a new idea when hearing a nuclear physicist just as a doctor should glean some facts from a speech on cake baking.
8. Yes. A closed mind puts a lock on your retention. A biased listener is so busy protecting his own ideas he cannot listen to what is being said.
9. and 10. Yes. Dr. Nichols points out that most people talk at a rate of 125 words per minute while the average person thinks at four times this rate. Unless the listener either anticipates or summarizes, his thoughts may wander, he will lose the points in the speaker's message.
11. Yes. A good listener weighs what is said against his own information and background. Be an active listener.
12. Yes. Some speakers say things they do not mean. Only by observing their expressions, gestures or inflections can the listener know that perhaps the exact opposite is intended.

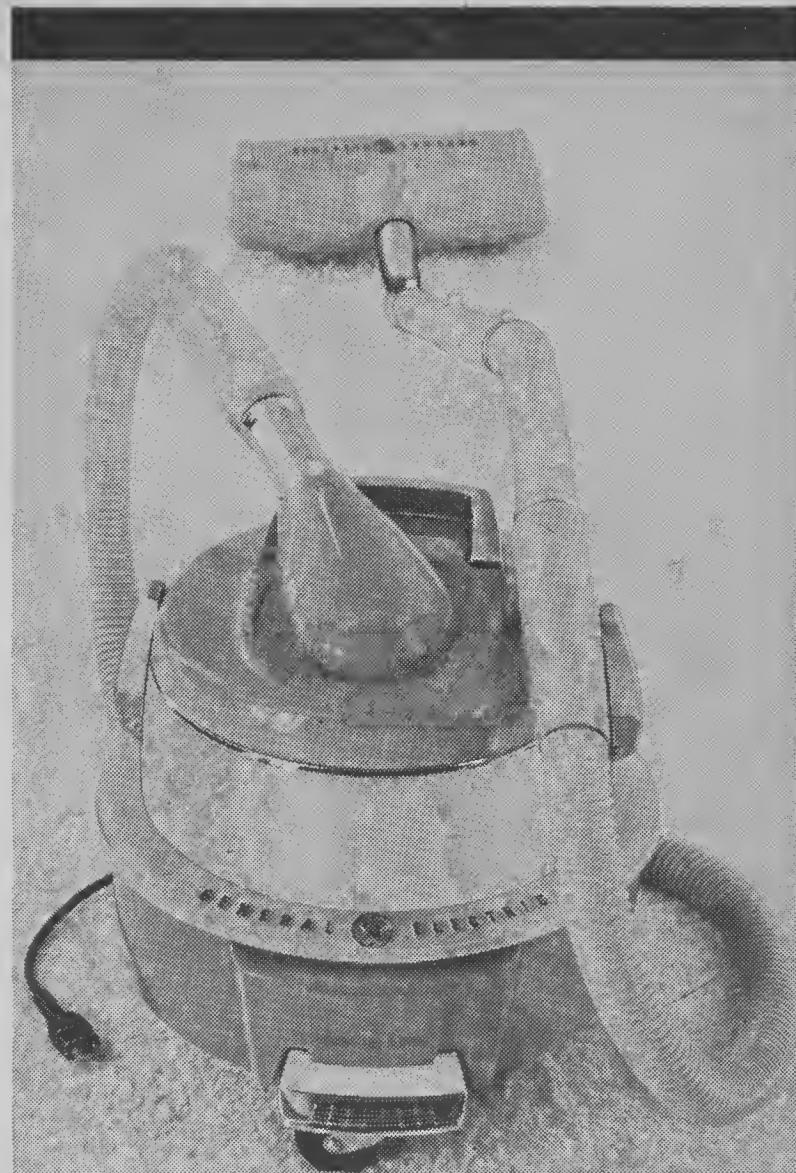
**Scoring:** Give yourself 2 points for each correct answer.

**0 to 6 points:** You have a long way to go in learning by listening. Fortunately, studies show that you *can* learn to listen. Use this quiz as a guide. Skill in listening intelligently can be acquired by training.

**8 to 12 points:** You are missing a great deal. Ideas float over your head like summer clouds. "Nothing can equal willingness to hear."

**14 to 18 points:** You have most of the listening skills. Now go after the rest of them.

**20 to 24 points:** Congratulations! There isn't much that escapes you. You have your wits around you. We'll stop talking and listen to *you* for awhile!



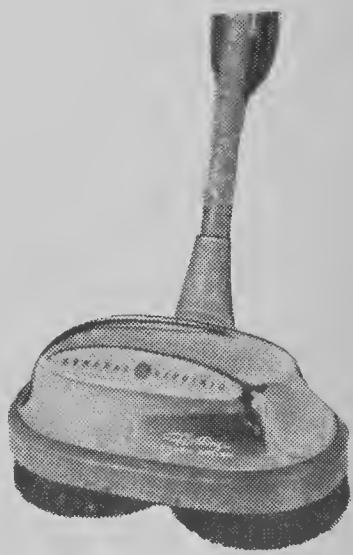
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## Dora Ballhorn of Alberta

**L**IFE for Dora Ballhorn, of Wetaskiwin, has been varied and full.

As a bride at the century's turn, her home was a log house on Woodlawn Farm. Today it's a modern home within city limits. In between the two, she helped husband Roy to build nearby Woodlawn into a community showplace. With this background, it was only natural she would be actively involved in compiling a prize-winning history of Alberta's Angus Ridge community.

Smiling, she'll tell you, "I've always wanted to write. I guess that's why I really enjoyed working on our community history." Mrs. Ballhorn may have guided this prize-winning story into its present form; but she emphasizes that it was only possible because the 30 members of the Angus Ridge Women's Institute dug deeply — into the memories of pioneer residents and into crumbling, yellowed records for almost forgotten facts.

Her pride is understandable because in 1959 the completed history won first prize in the Federated Women's Institute community history competition. Since then it has been published.

As entered in the Tweedsmuir competition, the prize-winning history stretched into two artistically-planned volumes. It's a warm, human account of the people, past and present, of the Angus Ridge community which includes the school districts of Cherry Grove, Battle River, Bear's Hill and Angus Ridge. Its words touch the heart; its pen and ink sketches, pictures, maps and well-designed covers capture the eye.

**A**T most of the big stock shows you'll likely see Dora Ballhorn hustling about. With Woodlawn Farm the home of a large and well-known herd of Aberdeen-Angus cattle, and husband Roy's interest in provincial and national breed associations, it's easy to understand her interest in the Aberdeen-Angus ladies' auxiliary. She was its Alberta president for 4 years.

This group looks after the social side of the association business; plans and caters for its coffee parties, picnics and barbecues. Catering members lost count of the number of pancakes they served at a special breeders' breakfast. They raise money for their activities by making badges, aprons and tea cloths for sale. And if you see Aberdeen-Angus breeders sporting

blue ties with an Angus head, you know they've succumbed to the womanly wiles of some auxiliary member.

Mrs. Ballhorn confesses to being a frustrated writer at heart. A number of years ago she had a series of stories published. More recently, her essay in an FWIC competition on "My Mother's Life" was judged the best of its kind.

**B**ECAUSE she "likes to do things" you'll find in her home a number of the attractive hooked rugs she's made; she can't count the number she's made and given away. Her busy hands have crocheted at least two banquet-size tablecloths, and Woodlawn, known far and wide as a horticultural show place, reflects the talents of her gardener's thumb. And she's been equally busy in community and church affairs.

The Ballhorns received Alberta's Master Farm Family award in 1950. They turned the farm management over to their daughter Roma, and her husband, Harold Simonson. Now they live in a new home in a newly-developed suburb of Wetaskiwin.

But Dora Ballhorn's roots and interests remain with the farm. "Town life just isn't as interesting as country life," she says. "Why, it takes days to see everything on the farm." And she likes to think that if town people got to know more about farm life, they'd be more understanding of country people and their problems.

Perhaps, by piecing together the story of their community, Dora Ballhorn and her neighbors have contributed toward that understanding.—E.F.

### Two and Two

*We could not sleep; the silver star Beckoned, diamond-like, afar, And so we sat inside the screen, Hand in hand, and love between. Mock orange blossoms twined the night With fragrance, and for our delight, A dozen or so fireflies Danced there, like dreams, before our eyes; Ah, this is sharing . . . two and two . . . I understand . . . and so do you.*

by JESSIE CANNON ELDREDGE

## Around the House

### Canned Food Storage

**F**REEZING doesn't do as much damage to foods in cans as high temperatures. For best quality in canned foods, R. D. Hyde of the Morden Experimental Farm, Man., says cans should be kept at a moderately cool temperature in a dry storage area away from heat sources.

High temperatures affect the color, flavor and texture of canned fruits and may cause vegetables to deteriorate. Freezing temperatures mainly affect food texture and such products as creamed corn may separate or curdle. High temperatures hasten the internal corrosion of cans. External rusting is caused by warm air condensing on the cool surface. Unless a leak develops in the can, external rusting will not affect the contents. ✓

### Food Insects

**I**NSECTS which infest food are a regular annoyance in the household and a constant lookout for them should be maintained, according to D. R. Robertson, entomologist, Manitoba Dept. of Agriculture. Insects such as larder beetles, rusty grain beetles, flour beetles and Indian meal moths may be found in dried foods and cereals.

Food packages infested with any of these insects should be returned at once to the store or the package should be destroyed. If the insects are found in cupboards, all packages should be removed and infested ones should be destroyed. The cupboards then must be cleaned and sprayed with household chlordane or DDT. Packages may be returned to the cupboard when the insecticide has dried. ✓

### About Synthetics

**A** MANUFACTURER of synthetic fibre offers the following answer to a question consumers have asked.

Q. My white nylon tricot slips tend to become yellowed, even after only a few wearings. Can you tell me what's wrong, and if there is anything I can do to prevent it?

A. There is nothing inherent in nylon which causes it to turn yellow, and it usually doesn't if cared for properly. However, to prevent yellowing, the following suggestions might be helpful to you.

1. *Thorough washing is a must, preferably in a machine if construction of your slip permits. Use a heavy-duty soap or synthetic detergent. Sometimes "easy washing" is overdone. It's important to remember that the dunk-and-rinse method which may be all right for your stockings is not enough for slips.*

2. *Thorough rinsing is equally important, to remove every trace of suds or soap particles. If left in, these may cause discoloration of the fabric. Soap residue may be the result of hard water. If this is the case, then using water softeners will help.*

3. Wash white only with other whites. Nylon attracts color, even from pastels, and it shows up as gray or yellow. Sometimes bleaches can be used effectively for this type of yellowing. ✓

## Talking Turkey

*Here are some preparation pointers for your Easter turkey*

Q. What size of turkey should I choose?

A. Allow approximately  $\frac{1}{2}$  to  $\frac{3}{4}$  lb. per serving and plan for extra servings and some left over.

Q. How much dressing should I make?

A. Allow about 1 cup of dressing for each pound drawn weight ( $\frac{3}{4}$  cup per pound undrawn weight). Allow a few extra cups dressing to be baked in foil or a covered casserole during the last hour of turkey roasting time if the family likes more dressing than can be lightly packed in the turkey.

Q. Can a turkey be roasted unstuffed?

A. Yes. Sprinkle body cavity with salt, monosodium glutamate and a little poultry seasoning, if desired. About 5 minutes per pound weight may be deducted from the total cooking time for a stuffed bird. Truss the turkey, tying legs to tail and bending wings back over shoulder for an attractive appearance.

Q. How can I tell when the turkey is cooked?

A. A meat thermometer is the surest way. Inserted in the middle of the stuffing, it will register 165°F when the turkey is done. The thermometer may be placed in the middle of the thick thigh muscle next to the side of the turkey (but not touching the bone) and the reading when done will be 190°F. Without a thermometer you can test the bird by moving the drumstick up and down. It will move easily in the hip socket and the meat will be soft to the touch when done.

Q. How much gravy should I make?

A. Expect approximately 4 to 5 servings from 1 cup gravy. Allow 1 to 2 tablespoons of pan dripping, plus 2 tablespoons flour per cup of liquid, plus seasonings to taste. Add more liquid during cooking to maintain the quantity. Simmering liquid from giblets and vegetable cooking liquid may be used in the gravy. ✓

### USE EASTER SEALS



HELP CRIPPLED CHILDREN

## What Farm Organizations Are Doing



Capital Press Service photo

Here are 4 of 6 lady delegates pictured at the 25th annual meeting of the CFA held in Ottawa last month (l. to r.): Mrs. C. R. Braithwaite, Alta.; Mrs. N. R. Jasper, Man.; Mrs. L. D. Taylor, Ont.; Mrs. T. Connaughton, Sask.

### AFA REPORTS DROP IN REVENUE

The directors of the Alberta Federation of Agriculture reported at the annual meeting that the growing trend among livestock producers to sell directly to packing plants, or through local auctions, is cutting into the AFA's revenue. Because of the fall in business volume, many livestock co-ops have had to reduce their contributions to the Federation. Another big revenue loss was a heavy reduction in contributions made by the Farmers' Union of Alberta.

Membership dues and contributions dropped from \$34,060 in 1959 to less than \$30,000 in 1960. The result was a deficit of \$928 last year.

For some years the annual meetings of both the AFA and FUA have considered the possibility of a compulsory checkoff of membership dues levied on farm taxes, or on the sale of farm commodities. To date, members have turned down compulsion.

Speaking against the checkoff at the AFA meeting, Jack Hallet of Fleet said that compulsory membership wouldn't automatically solve all farm problems. "If you'd visited some of the countries I have—including Russia—and seen compulsion at work, you wouldn't want any part of it," he said. "In my opinion the big trouble is that farmers are over-organized. There are too many leaders trying to achieve the same ends, but working at cross-purposes."

Another topic of discussion was the value of shipping grain via the Hudson Bay route. F. T. Appleby of Saskatoon pointed out that the northern terminal cuts 1,100 miles off the Great Lakes route and saves farmers about eight cents a bushel. He advocated that a storage elevator for Churchill grain be built in Newfoundland so European deliveries could be spread over winter.

### N.S. MARKET CAN TAKE MORE LIVESTOCK

The Nova Scotia Federation of Agriculture has issued a call to district and county federations to give livestock production a needed boost by carrying on educational and promotional programs for the next few

months. It is suggested that, all too often, the district federations are looking for program material and, all too often, matters are discussed which are much less important.

The question is "How can we increase farm income?" According to the NSFA, members should also ask, "Have we explored all the possibilities in this province?"

The Federation points out that there is a market in Nova Scotia that will absorb a great deal more livestock and livestock products than are now being produced. Present market prices are good, particularly for hogs. Indications are that these will hold for a considerable time.

The Nova Scotia Co-operative Abattoir at Halifax can process and market a great many more hogs, and other livestock, than are presently being handled. Therefore, many farms could profitably handle more livestock, either with the present or improved facilities. Livestock producers must learn also that it pays to feed a little extra to market cattle, because dressing percentage can be the difference between a poor and good return on an animal.

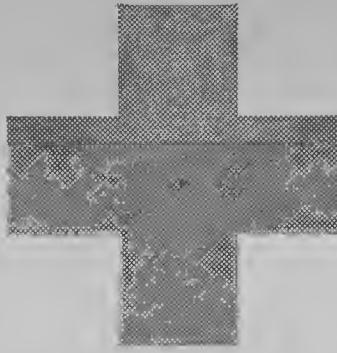
"We have been quite successful in producing quality hogs," says the NSFA, "but the quality of other livestock could be improved. We must think about it, we must talk about it, and we must work at it."

### FACTORY FARMS CAUSE NFU CONCERN

The National Farmers' Union's brief to the Federal Government, submitted last month, asked whether the object of federal policies is the preservation of the family farm, or the establishment of specialized "factories in the field."

The NFU expressed concern about the propagation of the idea that technological advances and efficiency demand the removal of the majority of farm families from the land, that the change is inevitable and desirable, and that farmers must accept it and adjust themselves to these new economic developments.

The brief quoted the Parliamentary Secretary to the Minister of Agriculture as having said: "What we are aiming for is not a lot of



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## What Farm Organizations Are Doing

mixed farms, but a number of specialized factories." The NFU wanted to know whether this statement reflected government thinking.

Turning to grain marketing, the farm unions asked the government to instruct the Canadian Wheat Board to rescind recent instructions to the

grain trade, which allow western feed mills "open market rights in purchasing grain supplies outside Wheat Board price and quota regulations."

A warning was given that Canada stands to lose access to important overseas markets, if and when the

United Kingdom enters the European Common Market, either directly or through a link of the "Outer Seven" with the "Inner Six."

The NFU proposed that the government take the initiative to open negotiations with the United Kingdom, the Western European countries and the United States for systematic lowering of trade barriers between them and the eventual establishment of an Atlantic free trade area.

A further proposal of the NFU was for a western grain policy to assure every grain farmer the opportunity of delivering a fixed volume of grain in any one crop year. The Canadian Wheat Board would announce in advance of each crop season the quotas it would receive from producers, and would pay producers for the undelivered balance up to a minimum of 8 bushels per specified acre. The undelivered grain would be stored on the farm with storage paid by the Board.

"Stabilization of farm income at a level which brings it into closer relationship to the national income is still the main problem to be solved," according to the NFU brief. It recommended that deficiency payments on such commodities as hogs and eggs be made on a regional and quarterly basis, instead of a national and annual average. ✓

### MEDICAL PLAN WORKABLE, SAYS SFU

The Saskatchewan Farmers' Union has gone on record as supporting the establishment of "a comprehensive prepaid medical care program through provincial government sponsorship."

Appearing before the Advisory Planning Committee on Medical Care in Saskatoon last month, the SFU said that a prepaid medical care program available to the citizens of the province can be implemented without unduly prejudicing the basic rights and security of the medical profession, and for the ultimate benefit of the people. Other points are:

- There could be no objection to a compulsory medical care plan as long as compulsion is restricted to financial contribution and not to use of the services offered.

- Doctors should be paid on a "fee-for-service basis," although there are weaknesses in this method. Fee-for-service could overemphasize quantity rather than quality in medical standards, and apply a conveyor-belt technique to the doctor-patient relationship, "as is the case in the private practice of some doctors now."

- The SFU would prefer not to see deterrent fees imposed. In any event, they should not be considered as a means of financing the plan. Payments should be calculated on a per capita and family assessment basis only, and property taxation should not be implemented.

- Any plan supported by public funds should be under some form of public control.

- A public plan must play an active role in research and the preventive field.

- The regional pattern of present health service areas should be maintained, or units of similar size established, with medical and hospital services tailored to meet the needs of the population. ✓

### FAMILY FARM IN NATIONAL PICTURE

The Canadian Federation of Agriculture told the Senate Manpower and Employment Committee, last month, that there is no conflict between the objectives of efficient agricultural production and a pattern of independent family farm enterprises.

While acknowledging the need to adjust to advancing technology in the interests of the nation and the farm community, the CFA maintained that a healthy farm economy based on self-employed rather than hired labor should be the objective of national policy.

The main proposals in the submission to the committee were:

- Maximum efforts to expand markets for farm products.
- Stepped-up program of non-commercial wheat distribution to countries unable to afford grain to meet urgent needs.
- Measures to avoid wastage of human resources in rural areas, with educational programs first on the list as an aid to realizing the full potential of manpower.

The Federation welcomed the proposed Agricultural Rural Development Act and the Technical and Vocational Training Assistance Act as opening up opportunities for Federal-Provincial action in marginal and sub-marginal areas.

Emphasis was placed on farm policies in marketing, credit, land tenure, and rural development to lay a foundation for a healthy family farm economy. Failure to do so would mean failure to attract to the industry a fair share of the best of farm young people. The Federation said such a failure would be a loss not only to the farm community but to the long-term national welfare. ✓

### ALBERTA WOMEN REVIEW DOWER ACT

Members of the Farm Women's Union of Alberta have set themselves the task of studying the Dower Act. So that others may benefit from this research, they have published their findings to date, which are summarized as follows:

- The original Dower Act applied only to the interest of a married woman in the homestead registered in the name of the husband, or personal property exempt from seizure. The present Act extends protection to the husband, where the homestead or such personal properties are held in the wife's name.

- "Homestead" means the parcel of land on which is situated the dwelling house occupied by the owner as his or her residence. This consists of up to one quarter-section of land, or up to 4 lots in a city, town or village.

- Before a transfer, mortgage, or other dealing with this land can be registered, one of three things is necessary: an affidavit that the person making the transfer or mortgage is unmarried; or an affidavit that the land is not the homestead, also stating where it is; or a consent signed by the wife, with a certificate of a commissioner or notary stating that she appeared before him apart from her husband and acknowledged that she signed of her own free will and

- The regional pattern of present health service areas should be maintained, or units of similar size established, with medical and hospital services tailored to meet the needs of the population. ✓

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with full knowledge of what the document meant.

If the husband dies, no will or other document can take away the wife's life interest in the home place. She also has a life interest in any personal property, which under the Exemptions' Act is exempt from seizure. This includes furniture and nearly all farm machinery, and a fair amount of livestock.

The weakness of the Dower Act, according to the FWUA, lies in the fact that no matter how considerable the husband's land holdings may be, he can dispose of everything except the home quarter without the wife's consent, and during his lifetime can sell all livestock and farm machinery without her consent.

The question also arises as to whether a quarter section of farm land is an economic unit for the surviving spouse to engage in farming. Since the Dower Act was passed, says the FWUA, many

changes have taken place in the economy of Alberta. Laws must be studied and reviewed from time to time, so that they can best serve the interests of the people. ✓

#### PASTEL SHADES FOR MARGARINE

The Ontario Farmers' Union has expressed concern over "pressure being brought to bear on the Provincial Government to allow margarine to be colored yellow to resemble butter."

Mrs. Harold Hopkins, women's president of the OFU, says they have no objection to coloring margarine in any nice pastel shade, other than yellow. But it would be perpetrating a fraud to the public in having it colored yellow, which is the natural color of butter. She maintains that any attempt to imitate butter, which will further affect the income of the farmers, will be strongly opposed by the OFU. ✓

## Letters

### Interest in Trefoil

Thank you for your issue containing your report on birdsfoot trefoil. I thought it gave a very factual account of trefoil and should introduce many more farmers to this plant. As a result of your article, I have had many inquiries about trefoil, and letters from as far away as Alberta and Manitoba.

Your photography was excellent indeed. I thought our cow was particularly photogenic.

DON MACDONALD,  
Wolfe Island, Ont.

### Knows What He Likes

Enjoy your country magazine very much and look forward to it every month. Enjoy the workshop, your fiction short story, and articles by Cliff Faulknor and Clarence Tilenius especially.

WALTER LUTZ,  
Bruce, Alta.

### Farmers and Feed Mills

I assume that only farmers who have grain surpluses, which they cannot market through the Wheat Board quotas in the foreseeable future, who need the storage space, or a piece of equipment which they cannot otherwise pay cash for, will sell grain to feed mills at reduced prices. These are helping themselves, for on a section of land a farmer cannot successfully function on even an 8-bushel quota.

Any farmers who cannot completely fill their quotas at the year end because they have not sufficient grain, but sell grain to feed mills during the year, are silly, deserve all they get and get all they deserve. I believe this group is almost negligible. We have been told that over 35 per cent of farmers holding permit books could not fill a 6-bushel quota at the crop year end. Surely none of these would sell any to feed mills at reduced prices.

The Wheat Board is seldom able to sell more than a 6-bushel quota,

so farmers are obliged to find a market for themselves in order to keep going. If the Wheat Board would get busy and find more markets for grain the situation would clear up. But if a selling agency were established in every potential market there is, it will mean nothing unless our government allows those people to pay for grain with the products of those countries.

More sales by the Wheat Board are one cure, and would stop much skullduggery. Now many implement dealers act as selling agents for farmers with surplus grain, and in the process sell machinery for as good as cash, for they find other farmers need feed, or who cannot fill their quotas but will allow this grain to be sold on their quotas, and the proceeds go to the machine agent, the farmer receiving a small commission for his part in this questionable transaction. This is only one example of what is going on because the farmers are not able to sell enough grain through the Wheat Board, nor are they getting enough for what they do sell.

I have read in the press that the Wheat Board favors the new ruling because it creates sale of grain which the Board is unable to take delivery of. It has been reported also that Mr. Hamilton has claimed that both the provincial governments on the Prairies, and the farm organizations here are favorable to the legislation. On the other hand, I have read where both cabinet ministers and farm leaders have strongly condemned it. Apparently, somebody is "perambulating the precincts of veracity."

Perhaps farm organizations could be more gainfully employed by tackling causes rather than fiddling with results. For example:

1. There should be more control over present issuing of permit books.
2. Statutory declarations made by applicants for permit books should be enforced.

3. All grain sold except from farmer to farmer should have to pass through elevators and the P.F.A.A. deductions paid.

4. Urge production controls by quotas issued on the cultivated acreage of the farm to prevent feed mills and other non-farmers from setting up feed lots and usurping the farmers' occupation.

5. Investigate how the "built-in price support system" used by the government for industry could be applied to agriculture, in order to give the primary industry also a "built-in price support system."

W. W. WARNOCK,  
Unity, Sask.

### Before Going to Sleep

In "Do You Organize Your Time?" (Young People, January), the ninth question reads "Just before you go to sleep, do you calmly plan your next day's activities?" The answer should have been NO. How can anybody get a rest and a good night's sleep going to bed with all their activities for the next day on their minds? Ask any doctor and he will tell you to forget all things on going to bed. Otherwise, thinking of your next day's work will surely bring on nervous disorders for both young and old.

A. SPOONER,  
Stayner, Ont.

## The Bible is a CATHOLIC Book

People differ radically in what they think about the Bible.

Some seem to think it was handed down from Heaven written in English and bound in Morocco. Many accept it as the inspired Word of God without knowing why they are justified in doing so. And others say that the Bible is full of contradictions and must therefore be taken "with a grain of salt."

A proper understanding of the Scriptures can exert a tremendous influence for good in your personal life. You should, therefore, know where we get the Bible... what it means... why you can believe its every word.

Nowhere in the Bible text will you find a list of the 73 inspired books of which it is composed. This list was given to the world by the Catholic Church almost three full centuries after the crucifixion of Jesus Christ. Between the time of the Crucifixion and the time that the Scriptures were gathered into a single Book, millions had received and accepted the teachings of Jesus Christ... and had died without ever seeing the complete Bible.

Established by Jesus Christ Himself and rapidly spread among the nations of the world, the Catholic Church was carrying on Christ's work for the salvation of men some 60 years before the Apostle John wrote his books of the New Testament.

For more than a thousand years afterward, the Scriptures were preserved and circulated by Catholic monks and scholars who laboriously copied the sacred text by hand. And the Bible authorized by the Catholic Church was the first book produced by Gutenberg upon the invention of printing.

Yes, the Bible is truly a Catholic book. They were members of the Catholic Church who, under God's inspiration, wrote the New Testament in its entirety.

It was the Catholic Church which treasured it and gave it to the world in its original and unaltered form. It is the infallible authority of the Catholic Church that always has been the only sure guarantee of its inspiration.

There are obscure and difficult passages in the Bible, some of which may seem confusing. But with the complete revealed truth of God, delivered to her from the beginning, the Catholic Church has faithfully unfolded the meaning of the written Word of God to past generations of mankind—and does so today.

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## What's Happening



The 1961 executive committee of the Ontario Farm Safety Council taken at the organization's recent meeting at Guelph: (l. to r.) L. Dobby, Uxbridge, chairman; G. Smith, Burgessville; Mrs. Helen Smith, Gananoque; A. Spaull, Warren; K. Dickie, Hyde Park; Oscar Snyder, Elmira; E. Lemon, Stouffville.

(Continued from page 8)

In effect, the plan asks for fluid milk producers to accept some responsibility for the surplus milk that they help to create. It said they dump up to 750 million pounds of surplus onto the manufactured milk market, depressing prices there. Under the proposed plan:

- Everyone now shipping fluid milk would have their quotas frozen for the time being.
- An equalization fund would be built up.
- Supplementary payments would be made from this fund to milk and cream shippers who do not receive Class I or fluid milk prices.

Size of the equalization fund would depend on how fast fluid milk consumption continues to increase. Dairies would continue to pay fluid prices for all milk that is to be used for fluid purposes, but quota producers would be paid fluid prices only up to their quotas. For milk shipped over their quotas, producers would get secondary prices, and the dairies would pay the difference into the equalization fund which would be administered by the Central Producer Board.

A high supplement could be made to shippers who meet fluid standards, and a low supplement to other manufacturing shippers.

How would it work? It should be possible at the end of the second year, to make supplementary payments of up to 50 cents per cwt. to 2,000 new shippers who meet fluid standards. Shippers of manufacturing milk who don't meet fluid standards could get a payment of up to 3 cents a cwt.

At the end of 3 years, the committee predicted it might be possible to increase quotas; establish new quotas for dairymen without quotas; adjust supplement payment levels; and begin a sales promotion plan.

The committee of enquiry consisted of Dr. D. L. MacFarland, McGill University; Prof. A. W. Wood, University of Manitoba, and Prof. John Carncross, Rutgers University, U.S.A. It pointed out that more and more manufacturing shippers are increasing the size of their herds, and bringing their quality standards up to those of fluid shippers. It sug-

gested that the provincial government could not long continue a control system which bars these farmers from some participation in the higher prices paid for fluid milk.

Under the proposed plan, milk would fall into four classes: Class I A would be the milk coming from fluid milk shippers and paid for at standard fluid prices. I B would be the surplus shipped by I A producers. Class II A would be milk shipped by non-quota shippers who meet production standards equal to those required for the fluid milk market. Class II B would be milk and cream shipped to manufacturing plants by shippers who do not meet standards set for the fluid market.

All Class I shippers not now on quota would be brought under quota. Milk in excess of quota, shipped by quota producers, would not be eligible for supplementary payments.

The committee estimated that the proposed equalization fund would total over one million dollars the first year, would receive more than two million dollars the second year and about three and a half million dollars the third year.—D.R.B. ✓

### ILLEGAL SPREAD SUGGESTS NEW PROBLEMS

Whether they wanted it or not, a few consumers in Ontario have been getting colored margarine and a little more besides. They have been getting an extremely poor product. When seized and analyzed, samples of the spread turned out to be high in moisture content, low in fat content, and to be improperly labeled as well.

Of course, the trade was illegal. But it represents a new turn in the butter-margarine battle. Officials of the Ontario Dairy Branch report a step-up in the movement into Ontario of colored spreads that have been manufactured in Quebec. The substandard product is purchased at a low price in Quebec, hauled across the border and sold at a big mark-up. Profits from the trade could be substantial.

In a bid to stamp out the activity, Ontario Dairy Branch officials are pressing charges against anyone

(Please turn to page 100)

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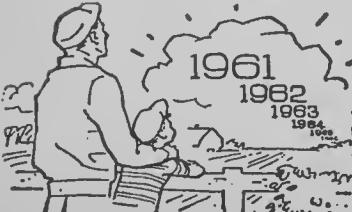
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## What's Happening

(Continued from page 98)

caught. Several trucks containing the illegal product have been stopped in recent weeks and the spread seized. Legal action is pending against at least four truckers involved.

As a result of this experience, Dairy Branch chief J. L. Baker says it now appears that it will be more difficult than ever to safeguard the public if the sale of colored margarine is legalized. Restaurants present the greatest source of trouble. Even today, when sale of *colored* margarine is illegal, and restaurants serving margarine must display a sign pointing this out, control is difficult. Some restaurants still try to evade this law and policing them is difficult. If the sale of colored margarine is legalized, Mr. Baker foresees increasing difficulties in assuring the consumer that he is always eating what he thinks he is eating. ✓

### SHEEPMEAN ADVISED TO WAKEN UP

Ontario's sheep breeders have been advised to "waken up." In a call for action, W. H. J. Tisdale of the Canadian Co-operative Wool Growers told the Ontario Sheep Breeders' Association annual meeting that most provincial sheep breeders' associations are not abreast of the times.

Breeders were informed their bread and butter is with commercial

sheepmen within the province. It was time, Mr. Tisdale said, for breeders to begin to work with commercial men, maybe by inviting them to join the association and renaming it the Sheep Producers' Association.

Commercial flocks are getting bigger in Ontario, Mr. Tisdale reported, pointing out that records of the Co-operative Wool Growers showed at least 138 flocks of over 100 ewes each. These people represent a market for rams, if breeders want to take advantage of it. At the same time, exports of purebred sheep from Canada dropped off from 4,387 in 1948 to 1,506 in 1958. By 1960, they were down to 616.

A committee was set up by the sheep breeders to come up with an action program. ✓

### HOG SUPPORT REMAINS UNCHANGED

Hog prices during 1961 will be stabilized by a deficiency payment program similar to that in effect last year, it has been announced by Agricultural Minister Hamilton. Support price to producers has been established at \$22.65 per cwt., national basis, which is 83.5 per cent of the 10-year average price. Deficiency payments, if required, will be made to each registered producer on a maximum of 100 Grade A or B hogs.

The Minister warned producers against overexpansion. ✓

## Western Stock Growers Discuss Rustlers—Hear Hustler

AMONG resolutions considered at the 65th annual convention of the Western Stock Growers' Association held at Lethbridge, Alta., last month were two which dealt with rustling. The complaint—modern cattle thieves, equipped with large cattle liners capable of speedy transport over long distances, are taking a heavy toll of animals held in isolated corrals some distance from ranch headquarters.

One "rustling" resolution asked the Alberta Government to extend game warden duties to include livestock patrol. Because these officers cover rural areas by both car and plane, Association members feel they would be in an ideal position to investigate suspicious-looking persons and vehicles.

The second dealt with the increasing number of cattle lost along the Alberta - Saskatchewan border. Because it is suspected these animals are being disposed of in Saskatchewan, the resolution asked the Saskatchewan Government to improve brand inspection of cattle coming from Alberta.

Other resolutions included: An endorsement of the Federal Government's policy on non-Wheat Board purchases of grain by feed mills; a request that truck load limits be standardized in all provinces to speed the movement of livestock; and that the Health of Animals Divi-

sion limit brucellosis tests to months convenient to producers. Another resolution opposed the Alberta Government's principle of ever-increasing percentages in calculating range lease rentals. In supporting this resolution, Brangus breeder Bruce Dawson of Atlee, stated cases where the Government was collecting three times more from lease rentals than from taxes paid on comparable deeded land.

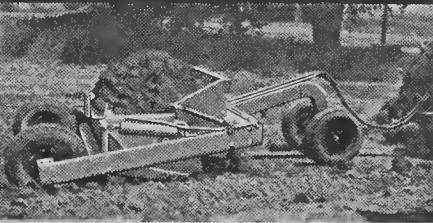
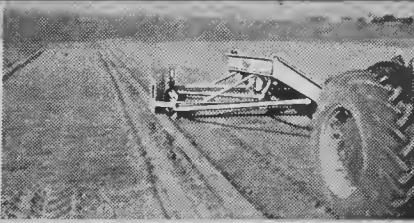
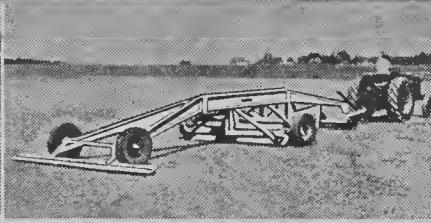
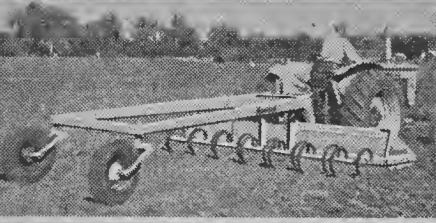
THE hustler is Agriculture Minister Alvin Hamilton who spoke at the end of the 2-day convention. Continuing his whirlwind campaign to herd Western Canada back into the Diefenbaker corral, Mr. Hamilton forecast a favorable beef market in the years ahead, despite the fact western ranges are now stocked to capacity in both Canada and United States. He announced that the Federal Government is going to build a new Animal Research Institute on 4,000 acres of land near Ottawa to centralize all livestock studies.

The Minister also predicted Canadian wheat exports would this year exceed the target of 300 million bushels, and had some harsh words for those who said the Government's Japanese trade policies were harming the Western Canadian farmer. "Figures show our imports from Japan have greatly increased over the past few years," he said.—C.F. ✓

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#### HOG BOARD PLANS

##### TELETYPE SELLING

Ontario's hogs are going to be sold through a teletype system. In a move to save its marketing plan, the Ontario Hog Producers Marketing Board has drawn up plans for the system, and these have met with approval from the Farm Products Marketing Board. Earlier the Hog Board had been ordered to devise an open system of sale, or lose its compulsory powers.

Installation of the teletype machines will begin in March, and should be completed and ready for use by April. A master machine will be installed in the office of the hog selling agency, and teletype units will be installed in the offices of each of the 16 main hog buyers in the province. Each buyer will be

notified of every lot of hogs that is being offered, and of its location. Bidding can be done on an ascending or descending price basis. Once each sale is made, every buyer will be notified of the selling price, but only the successful bidder will know who got the hogs.

Small buyers — those buying less than 1 per cent of the hogs offered annually — will buy through the selling agency. That is, they can place their orders with the selling agency, and the agency will buy, in competition with other buyers, through a teletype unit in its offices.

The selling agency will pay the initial cost of installation of the teletype system, and then the buyers will pay the operating costs. Costs will be 1½ cents per hog purchased, at the start, and this will be adjusted from time to time, if necessary. V

mendations which would lead toward a solution of such problems. It also agreed to ask for increased research into the utilization of farm products.

Social Welfare. In this field, CFA decided to request the Federal Government to: (a) study the possibility of aiding provincial health schemes, and (b) consider increasing old age pensions through a contributory plan.

Credit and Financing. The meeting agreed to request the Government of Canada to: (a) make available loans with equal facility to all types of farms, including those whose main investment is in buildings rather than land; (b) establish loan insurance for borrowers under the Farm Credit Corporation to cover total disability and death; (c) establish a new class of building depreciation under the Income Tax Act in order to increase the capital cost allowance rate from 10 to 20 per cent under Section 17, and from 5 to 10 per cent under Section 11, and (d) allow depreciation on farm storage facilities at a rate of 10 per cent, instead of the present 5 per cent.

Broadcasting. The meeting expressed its support for the view that the degree of dependence of the CBC national network on commercial revenues, as opposed to public revenues, should be reduced in order to give the national broadcasting service a more adequate opportunity to provide a full national television service of good quality and in good taste.

#### CFA'S QUARTER CENTURY

(Continued from page 16)

Faith was reaffirmed in the principle of deficiency payments as being the fairest method of providing adjustments for grain producers.

Delegates considered acreage payments of \$40 million inadequate, and agreed to request that it be supplemented by other means. They resolved to continue to press for a two-price-system for western grain used for human consumption in Canada, and to urge the Government to assume the cost of subsidizing flour exports.

DAIRYING. The complete set of resolutions passed by the annual meeting of the Dairy Farmers of Canada, and reported in full in the February issue of this publication, were endorsed.

#### MISCELLANEOUS RESOLUTIONS

The remaining resolutions which received the support of the meeting may be summarized as follows:

Rural Development. The CFA expressed its approval of the proposed programs, requested that they be administered by departments of agriculture, and pledged its co-operation in their promotion.

Research. The delegate body decided to ask the Federal Government to establish a research committee to study problems of the agricultural industry, including the cost-price squeeze, and to bring in recom-

Trading Stamps. The meeting commended the Canadian Association of Consumers for its efforts to have trading stamp and premium schemes abolished, and agreed to work toward the establishing of the necessary legislation to prevent their use as a merchandizing practice.

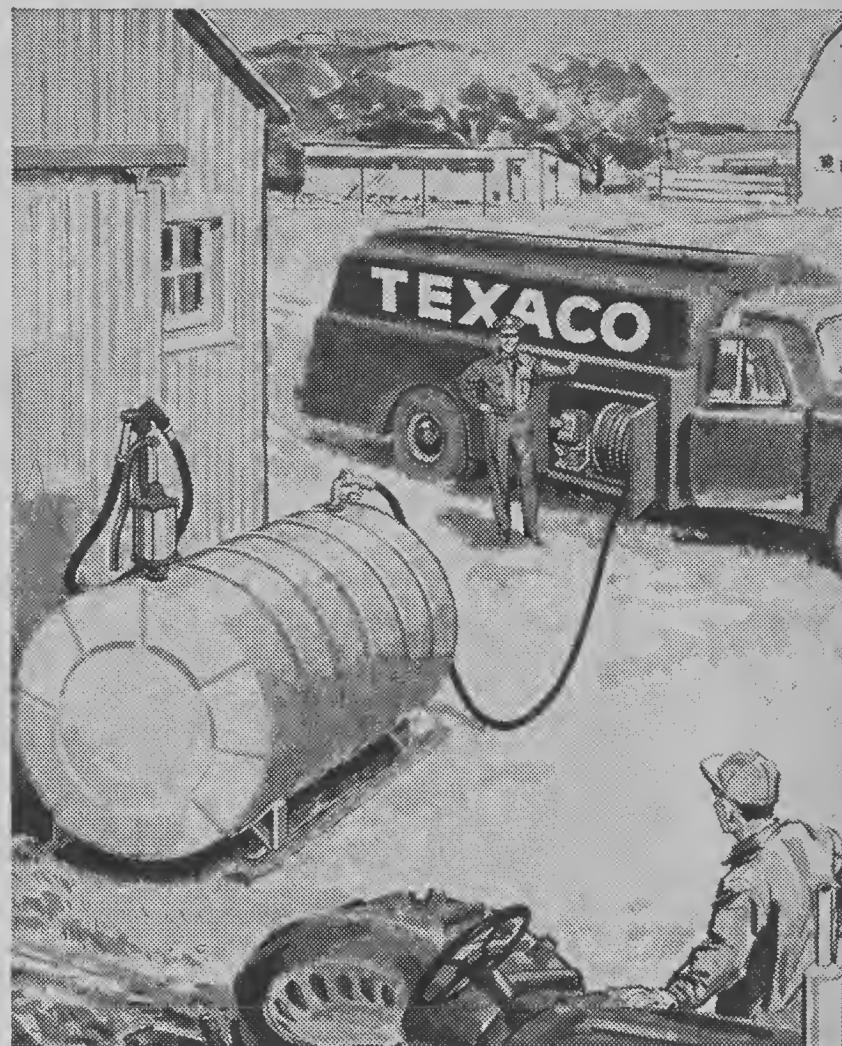
Drugs. The CFA Board of Directors was asked to review the problem of the high cost of drugs, and to maintain, in this connection, close

liaison with the Canadian Association of Consumers and appropriate Federal agencies.

Nuclear Weapons. The meeting resolved that Canada take the lead in a plan to control the spread of nuclear weapons by promoting an agreement under the jurisdiction of the United Nations committing all nations to agree that they will not test, manufacture, or possess any nuclear devices for warfare. V

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Hi FOLKS:

The last time Ted Corbett paid us a visit he was full of optimism.

"I knew these here scientists would someday stumble onto something that would actually benefit the human race," he said, waving his daily newspaper excitedly. "Here's a report from London which says the doctors of tomorrow may be robots."

"They are now," I grumbled. "You should've seen the last medical bill I got."

"No, no, not robbers, you numbskull — ROBOTS," he said. "You know, the mechanical kind, with metal chests, valves and flashing lights."

"The Medical Association wouldn't stand for it," I pointed out. "How could they ever collect dues from doctors like that?"

"Once this thing gets rolling proper there won't be any Medical Association," he prophesied. "It says here robots are already taking over

the jobs of skilled and conscientious nurses, chemists, physicians — even surgeons. Why, with mechanical doctors, the bills can't help but be smaller. A robot might hanker for a new bulb or transistor now and again, but it won't be building a fancy home in the suburbs or shopping for a new Cadillac."

"I'm not sure as I'd care to have some beat-up old machine trying to take out my appendix," I said nervously. "And that's the kind of robot we'd get around here. You can bet your life all the trade-ins from the city would land in country hospitals."

"You're just plumb afraid to move with the times," he retorted. "The way I see it, this will be a real boon to mankind. Not needing a costly university education and such, a machine could do almost any job you wanted at a real cut-rate price. And think of the hospital service you'd get! It says here, a mechanical nurse strapped to the foot of the bed could keep constant check on

your temperature, blood pressure and pulse."

"There sure wouldn't be much of a pulse beat to check," I told him.

"I can see you lack the true scientific approach," he said sadly. "Why, it's only a step or two from mechanical doctors to mechanical dentists, lawyers and the like. I can just see

taxes and prices coming down as fast as rain at haying time. Some genius might even turn out a mechanical farmer. Think of that!"

"Well sir, I did think of it. But who could build a machine to stand the punishment a farmer takes?"

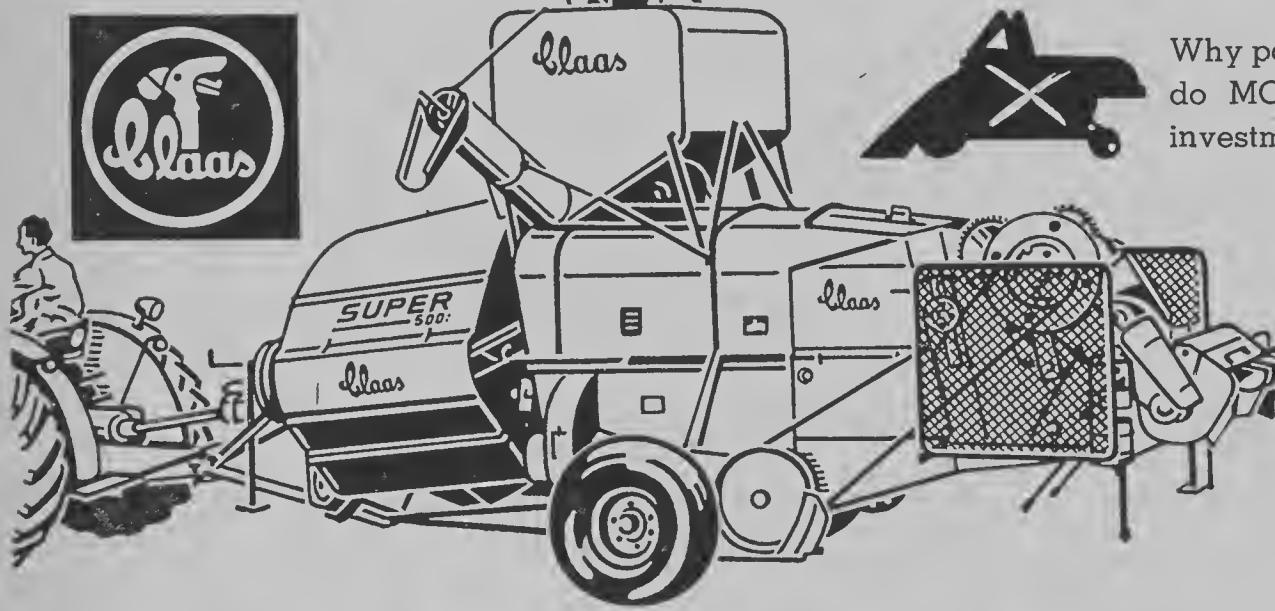
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